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AMSTRAD ACTION

ISSUE No.109
OCTOBER 1994
£2.95

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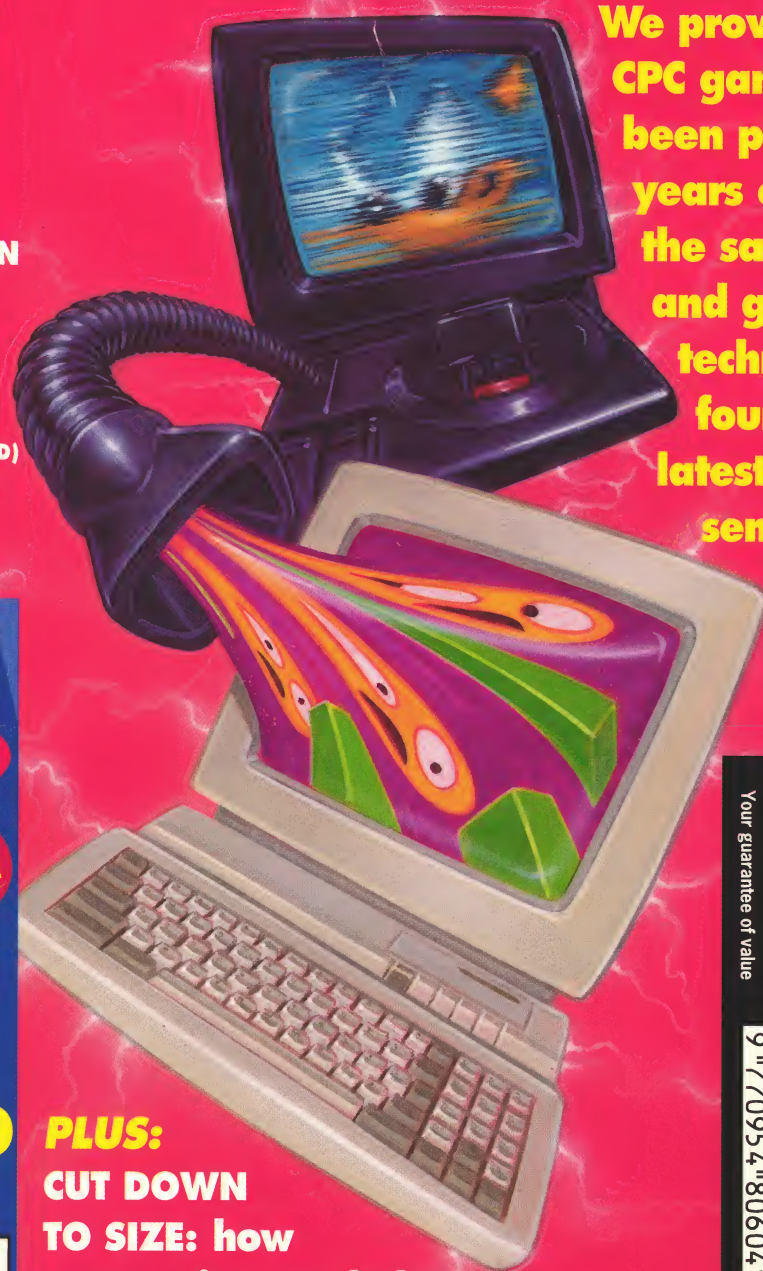
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OCTOBER 1994 *Serious*

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AMSTRAD ACTION

**OCTOBER
ISSUE 109**

Line-up

REGULARS

5 Amscene

Better Than Life has certainly caused a stir... find out why. Plus exclusive news of an 8-Bit Computer Fair.

6 Letters

Should the covertape go? Are radio hams really all right people? Has Simon got nits? These are the debates that have spurred you into (re)action this month. Oh yeah, this is where you'll find the Directory this month, as well.

12 Back Issues

Hurry, hurry, hurry - get those old issues of *Amstrad Action* that you still need before they run out.

21 Reader ads

You wouldn't believe the things people sell in our reader ads section (well, you probably would, unless you don't believe in 3.5-inch disc drives or copies of *MasterCalc*, in which case you're a very odd person indeed).

SERIOUS STUFF

13 Basically Basic

Power and mastery over your CPC could be yours... and your first step towards achieving it is checking out our regular beginners' Basic series.

14 Techy Forum

The man they call Richard Fairhurst (because, strangely enough, that's what his mum called him) answers more of your technical queries, and resists the temptation to plug *RoutePlanner* every second line.

21 So why do you need a ROMboard?

If you don't know now you will after you've read this little feature. You'll wonder how you've ever managed to survive without one.



22 Screen compacting

Want to know how to squeeze more graphics on to a disc? Then Rob Buckley's here with a few hints about compaction and a snazzy all-purpose routine.

17 Cover feature: Under the influence

There's nothing new under the sun. All these new-fangled consoles and CD-ROM PCs. Hah. None of 'em have got a new idea to rub between 'em. We have a look at the way the games and applications which first appeared on 8-bits like the CPC have directly spawned or indirectly influenced virtually every piece of software you can find for any machine today.



LEISURE ZONE

25 Reviews: Further Reading

So, this *Better Than Life*... just what is all the fuss about? David Crookes gives you the first review of the disczine that got people talking... for a whole load of different reasons.

26 Reviews: Public Image



Some of these 'ere PD games are beginning to look mightily impressive, but are any of them actually fun to play? That's what Keith Woods is here to find out.

28 Adventures: The Examiner

Who says they don't write adventures like they used to? This month we have a look at an SF extravaganza that looks set to be an instant classic.

30 Cheat Mode

If you're stuck on *Renegade*, *Driller*, *IK+*, *Nemesis*, *Savage*, *Wizard Wars*, *Tag Team Wrestling*, *Captain Dynamo*, *Rainbow Islands*, *Armageddon Man*, *Rainbow Islands*, *Gauntlet*, *Burnin' Rubber* or *Sim City* (phew!) we've got a cheat for you.

33 Review: Black Jack and Cribbage

Fancy a bit of a flutter? We break the seal on this pair of computerised card games to see if they're aces or jokers.

34 Review: Star Drivers

Racing action on asteroids - sounds a bit weird? Don't worry, it gets weirder.



Check out what's on this month's covertape...

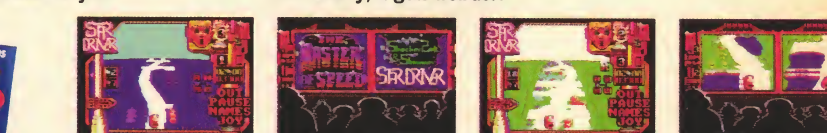
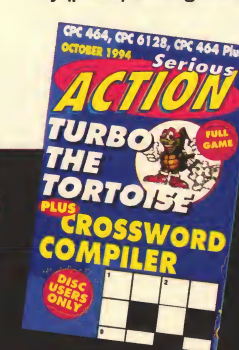
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**TURN TO
PAGE 10
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Amscene

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...FOR BETTER OR FOR WORSE?...

An initial reaction of outrage from Irish CPC users to the new, long-awaited UK disczine, *Better Than Life* (BTL), has cooled as two leading members from both factions have discussed ways of bringing hostilities to an end and hopefully forging new links between Irish and UK CPC users.

The original furor began when members of the Irish CPC fraternity read articles in BTL slating various leading members of their scene, including AA's PD writer, Keith Woods and Derek Hyland. Many European CPC users

also felt that the 'zine was biased against them.

Because one of the 'zine's main contributors was Richard Fairhurst, also an AA writer, there was talk among Irish CPC users of a fax and boycott campaign directed towards us. However, Keith Woods stepped in and managed to convince them that the best way to fight back was by "beating them at their own game."

The plan was hatched to produce a massive 100-page fanzine

that would not be full of, "slagging off", but, "reviews, news and features that would appeal to all CPC users."

And then came the surprise breakthrough. Following a long international phone call, Richard Fairhurst and Keith Woods managed to patch up quite a few old wounds. The result - Richard has agreed not only to contribute to the Irish 'zine, but also to let certain Irish PD libraries distribute his PD software.

"The reaction to BTL in Britain has been very good," says Richard. "But it would be a shame if the seven or so 'controversial' articles means that people outside the UK overlook the other 30 or so good features on things like programming. So this is a sort of a peace offering."

We review BTL on page 33.

...PRISM BREAK FOR THE CPC...

Long-established Spectrum PD library, Prism PD, has moved into the CPC market. They will be offering software on both tape and disk, plus, in a couple of months, 3.5-inch disk. Prices are £1.50 for a disc of PD plus 30p for each additional disk and a fifth disc for free. Tape software is £1.50 for £12 titles. All tapes/discs must be supplied. Prism is the only 8-bit PD library to

belong to PSD (Professional Standards of Distribution) a watchdog body set up to keep check on Amiga and PC PD libraries, so you can be pretty sure you'll get good service.

The library also has its own 'zine, *PD Power*, which costs £1.70 for members (£2.20 for non members).

Send a disc plus SAE to Prism PD, 13 Rodney Close, Rugby CV22 7HJ for a catalogue. A digitising service is also available.

...LOSS OF CONTACT...

Amstrad Contact has unfortunately closed down because founder member and guru Dave Muggeridge no longer has the time to run the club. All members will receive refunds. For details phone 0403 753348.

...8-BIT FAIR...

The second best computer show of the year (after the FES, of course) looks set to be an 8-bit Computer Fair that's being planned for mid-October in Cheshire by a new company called SF Productions (SF stands for 64, but don't hold that against them).

At the moment details are still to be finalised, but SF are hoping to have leading names from the CPC, C64 and Spectrum scenes displaying all their latest hardware and software. Entrance for visitors will be free, while exhibitors will need to pay £3.50 a stall.

If you're interested in attending or exhibiting contact LS Bevington, 348 Station Road, Winsford, Cheshire, CW7 3DG.

...THE 'GLADES FOR GAMES...

Everglade have just bought in stocks of loads of classic CPC games, including titles like *Prehistorik 2*, *Indiana Jones and the Fate of Atlantis*, *Flimbo's Quest* and *Turrican*. Prices start at £3.95. For a full catalogue send a large SAE to Everglade, 68 Telford Street, Inverness, Scotland IV3 5LS.

Bad press?



At last - Ollie's found a new picture of AA's editor, Dave.

Every cloud has a silver lining, and in the case of *Better Than Life* it looks like the cloud won't be given a chance to turn into a storm.

I was about to write this editorial bemoaning how *Better Than Life* - despite its undeniably impressive presentation and some really quite well written features - was spoilt by a few articles which seemed to be the epitome of everything that's wrong with the CPC scene at the moment - they're vindictive and pointless (well, what could expect from a team of writers who include a couple of names familiar from the notorious Quantum Computing?).

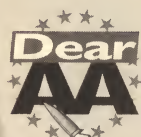
But matters have moved on swiftly, and it looks like there could be end to the hostilities between the Irish and British CPC contingents, which would be a relief. As reported in *Amscene*, Richard Fairhurst and Keith Woods have actually been in talks which have ended up with much better links being made between the two factions, and Richard actually agreeing to write some articles for Keith's fanzine.

I know it all sounds a bit like some hideous Disney-style pat philosophy, but I think this really proves that if people just sit down and talk over their differences, the results can only be positive. With everybody on the scene pulling together we really can start to produce quality software, hardware and, yes, even disczines for the CPC. Is this the dawn of a new age of peace and understanding? Well, as long as we can avoid throwing up, I certainly hope so. **Dave**



Reaction

Send your letters to: Reaction, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW



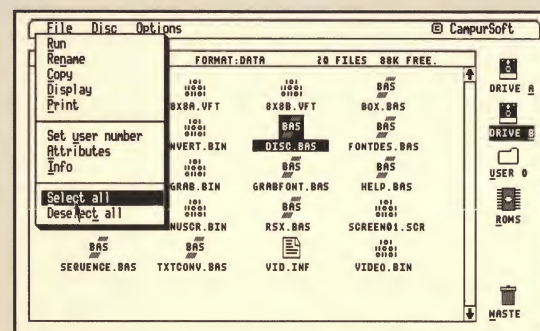
Satisfied

I thought it was about time I wrote and congratulated you and your team for the excellent magazine. I am an ex-Sharp MZ80k fanatic, but sold up in 1988. If only your level of support had been available for the Sharp. The CPC6128 is far superior, more user-friendly and adaptable in my opinion, but is only as good as the software available. You've cracked it in one go and with a magazine.

May I just put in a plug for OJ Software and Campursoft? Great service and back-up. both of them. They even call you back, at night if needs be

in the case of Peter Campbell. They deserve the business so please use them.

After a review in a back issue of AA I decided to try Quantum, but they were just very bad news (I'm trying to be polite) full of patter and empty promises. It cost me to stop the cheque but at least I didn't lose everything.



Revealed: how to make DES and ParaDOS compatible.

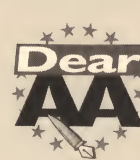
ParaDOS and DES are brilliant, but DES would corrupt and not respond or operate fully with ParaDOS. Solution: put ParaDOS into ROM slot seven and install a ROM off switch. When it's switched off you have a full 800k available per 3.5-inch A and B drive. When switched on ROMDOS XL takes over and you can use DES and MicroDesign without complaint (MicroDesign doesn't like ParaDOS either) but 800k is available only on drive B. So don't junk your old ROMs in order to install

ParaDOS; they are still useful.

Just one, very small gripe. Please realise that not just school kids read your mag. I am 43 years old but not quite an old fogie yet. I find some of the comments difficult

to grasp, reminiscent of the Beano, I think. Michael A Brown, West Bromwich.

Well wicked letter. Totally sorted and happy'nin'. You've got the vibes for sure, man. And we dig that great DES advice, daddio. Real cool. Stay cookin'. What do you mean, what are we on about? Dave



Idiotic

Hello. I really enjoyed that Speech program you gave away with issue... ah, well I can't remember details like that but it was really quite fun making it swear.

I'll tell you what, if you list them and print this, my fifth letter, I will subscribe and get a friend to subscribe too (bribery? I like that - Dave). I already have Ikari Warriors, so it was a bit of a sod when I saw it on the covertape, but at least it loads a lot quicker.

I have a couple of questions for you:

- 1 What is the difference between a Multiface and a Multiface 2?
 - 2 What's the worst game Simon's played?
 - 3 What happened to Adventure PD?
 - 4 Is the code name for the 6128 IDIOT. If it is, what does it stand for?
 - 5 I think Thomas Lowell who wrote that poem in AA106 should get a prize.
 - 6 Does Simon ever have problems with nits (no offence)?
 - 7 I did a survey in Chudleigh and 80 per cent of AA readers would like to see Dark Side on the covertape.
- James Moyse, Chudleigh, Devon

1 Was there ever a Multiface 1? Or was it just a legend? It's one of life's great mysteries. The Multiface 2 has had a few mods over the years, such as the ability to hide itself by hitting the STOP button, then returning to BASIC, shortly after power up. That's one modification, but it was added after the name change.

2 Probably the time he played Karpov and opened with the Schneider offensive, then went on to lose in five moves. Ah, you mean CPC games? In that case either Count Duckula 2 or that Panza Boxing cart thing, both of which are truly appalling.

3 It closed down and donated its entire stock to Adam Shade's Dartsma PD, 47 Kidd Place, Charlton, London SE78HP.

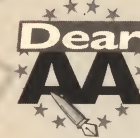
4 Almost, but not quite. Here's a run down of those Amstrad development nicknames that should make things clear:

464=Arnold
664=IDIOT (Insert Disk Instead Of Tape)
6128=BIG IDIOT (It's a bit bigger RAM-wise)
PCW=Joyce (Alan Sugar's secretary at the time - make of that what you will).

5 Don't ever apply for a job on The Times Literary Supplement, okay.

6 Only the ones that ask him daft questions.

7 From which we can work out that there are at least five CPCers in Chudleigh. Dave

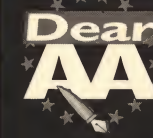


Exasperated

As Mr Spock would have put it, "It's illogical Captain." And yes, indeed it is, illogical. Why, why, why do you insist upon having a covertape?

I know this letter will resurrect some long-buried disputes, I know it may be scorned, battered and generally abused, and it may even start a civil war. But in these hardened financial times you have still chosen to make a page cut over dropping the covertape. The covertape is not a necessity. Surely it is the contents of the magazine which are more important, or would the Hairy Happening have nothing to do in his spare time if you dropped the cassette?

If you drop the cassette it would create less hassle for your good selves and would



Short Sharp Shocks

- Got any cheats for World Soccer? Stephen Fraser, Dunfermline

Jürgen Klinsmann of Germany is one of the worst according to Ollie. Dave

- What is tape-based PD like? Gareth Little, Peterhead

Pretty much what you might expect - slower to load and generally smaller and

less impressive (unless it's disc PD that's been saved to tape). A lot of it barely raises itself above above type-ins level, according to Simon. Which is a shame because there's no reason why there shouldn't be more really good tape PD. And, in fact, things are improving and the new breed of tape-only PD libraries proves a support for the format which will hopefully raise the general standard. Dave

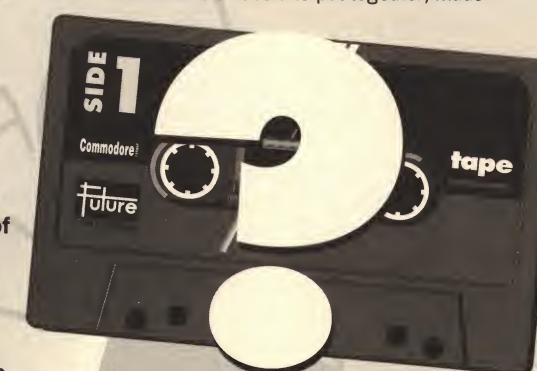
- I think Nebulus is a cross between a pig, a kangaroo and a tin of green Dulux paint. John Fee, Dundalk, Eire.

Next issue, we exclusively reveal Nebulus' parentage in true soap-opera style. Dave

enable the cash, formerly used to fund the tape, to become available to fund the return of those missing pages.

Whatever decision you make, I will assure you that I will remain with the magazine right until the end. All the best and thanks for the last decade. George Eaton, Tarporley, Cheshire

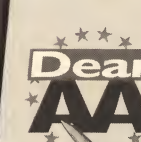
Believe me, Simon would like nothing better than for us to drop the cover tape - it is an unbelievable hassle to put together, made



Should we scrap the covertape?

even more complicated by the fact that there are so many different varieties of CPC - not even all 464 Pluses are the same. So no, we don't carry on the cover cassette because we love doing it, you can sure of that.

But I reckon it's about time we put this to the vote. Do you want us to abandon the covertape and have more pages? Or do you still buy the mag mainly for the software we give away? Most importantly, would you stop buying the magazine if the covertape was dropped? Don't write in about this one, though, because we need a large amount of feedback. So what's going to happen instead is this: Thursday 29th September is going to be voting day. Phone up the AA office between 10am and 5.30pm on 0225 442244 and register your vote. Dave



Hammy

I want to make a SERIOUS complaint. In AA107 there was an article called Bizarre in which it was claimed that radio



Amscene Directory

PD Libraries

Amsof
Lissanly, Cloyne, Middleton, Ireland
Large range of European stuff.

Basic PD
3 Beacon Lane, Whipton, Exeter, Devon, EX4 8BD
New cassette only library. 15p per side of C15 tape (95p if you don't provide a tape)

Braysoft
2 St Margaret's Road, Hayling Island, Hants, PO11 9BP.
3-inch disks only.

Colrob PD
9 Aviemore Road, Hemlington, Middlesbrough
New tape-only PD library

Demon
47 Milton Avenue, Hall Green, Birmingham B28 0PE
3.5-inch discs available.

Disk PD

Lower Dextbeer, Dextbeer, Holsworthy, Devon EX22 7LA.
0288 82348
Bet you can't guess what this lot specialise in.

GD PD

49 Woodville, Barnstaple, Devon EX31 2HL

Image PD

Darren Dodds, 15 Elmwood Drive, Ponteland, Newcastle-Upon-Tyne NE20 9QQ
Also provides a digitising service.

MPD Software

Martin Elliot, 23 Nobes Avenue, Bridgeway, Gosport, Hampshire PO13 0HS.

PD Fun

41 Michaelgate, Kirkby Lonsdale, Via Carnforth, Lancs LA6 2BE
A policy of 'no serious software'.

Penguin Software

62 Nursery Road, Knaphill, Woking, Surrey, GU21 2NW
Simon Green has taken over from the late David Carter to re-open this legendary company. For a free copy of the new Penguin Software Disc Catalogue send a blank disc and an SAE or a blank disc and 80p.

Prism PD

13 Rodney Close, Rugby, CV22 7HJ
0788 817473
The mega-successful Speccy PD library now moves into the CPC scene. Software on both tape and disc (3.5-inch disc availability soon). See the news story on page five.

Sheepsoft

Paul Fairman, 298c Holton Road, Barry, South Wales, CF6 6HW.

Sleepwalker PD

Disk software: Joe Moulding, 9 Meeting House Lane, Balsall Common, Nr Coventry CV7 7FX

Tape PD

Paul Sillifant, Lower Dextbeer, Dextbeer, Holsworthy, Devon EX22 7LA.
Also get in touch if you're into PBMs.

The Vault

43 Windfield Gardens, Clybawn Road, Galway, Ireland.
010 353 91 28204
Lots of European software.

Ultimate PD

26 Woodside Road, Irby, Wirral, Merseyside L61 4UL
Specialises in 3-inch disk and tapes.

Fanzines

Amazine

Gayton, Laneside Road, New Mills, Via Stockport, SK12 4LU
0663 744863

Better Than Life

2 Trent Road, Oakham, Rutland LE15 6HF.
Reviewed on page25.

The Eliminator

14 Station Road, Riccall, York, North Yorkshire YO4 6QJ

CPC User

0329 234291
The UAUC's fanzine.

CPC Undercover

37 Tringham Drive, Brandleholme, Bury, Lancashire
A technically-minded fanzine that's also on the look out for writers.

Ultra Games

20 Lancaster Terrace, Chester-Le-Street, Co Durham, DH3 3NW
Cassette-based multi-format fanzine.

User Groups

Amstrad Contact

0403 753348
Sussex-based group that also runs a technical helpline for CPC users.

UAUG (United Amstrad User Group)

0329 234291
An AA-recommended user group.

WACCI

0602 725108
They're fab. Give 'em a ring.

Independent Software Companies

Campursoft

041 554 4735
You name it, they do it, really.

DMP Software

89 Wolverhampton Road, Codsall, Wolverhampton WV8 1PL

New Age Software

PO Box 1818, Redditch B97 4AZ
0527 597707
Responsible for ZapT-Balls, the excellent Soundtraker, and, hopefully, a (hopefully) few more titles pretty soon.

Radical Software

081 856 8402
Still producing top-quality software for the CPC.

Reveal Computer Software

PO Box 1818, Redditch B97 4AZ
0527 597707
This lot wrote Music Maker (which was reviewed a couple of issues back) and currently have Professional Cribbage, Dino Quiz and Memory Exerciser in production.

SD Microsystems

0760 720381
Specialists in just about every kind of business and applications software.

Sentinel Software

081 876 7032
Suppliers of selected STS titles and a few original products.

Siren Software

061 724 7572

Hardware

Datel 0782 744707

The place to go for mice, printers, memory expansions, all that sort of stuff.

Microform Fax: 0772 703131

Drives, upgrades, disks, all sort of stuff.

WAVE 0229 829109

Suppliers of loads a good stuff.

Software suppliers

OJ Software 0257 421915

Fast friendly service, the ad says. And it's right. An impressively wide variety of software on offer.

Software Cavern

0628 891101
Probably the largest selection of CPC software for sale in the known universe.

Everglade

0463 240168
68 Telford Street, Inverness, Scotland IV3 5LS
A new company in Inverness.

STS

298 Holton Road, Top Floor, Barry, South Wales CF6 6HW
They're back - and selling Soft-Lok at £14.99.

Tronics North

010 6177 253 766
PO Box 7419, Garbutt, Queensland Australia, 4814.

The largest supplier of software and CPC bits'n'pieces in the southern hemisphere.

WoW

78 Radpole Lane, Weymouth, Dorset, DT4 9RS.
Specialists in adventures.

Mail Order

Trading Post 0952 462135

They're offering loads of cut-price cartridges at the moment.

Trojan 0554 777993

Great for cartridge and lightgun stuff.

Wizard Games 0723 376586

Games on every imaginable format.

Upgrades and repairs

HEC

47-49 Railway Road, Leigh, Lancashire WN7 4AA.

0942 261866
They've been around for ages, guarantee a fast turn-around, and must be a much better bet than Avatar. Give 'em a go.

hams, "are weird people from the word go." I'd just like to make a point or three.

1 WRONG!

2 I am a radio-type person. I am not rich, demented, deranged or conversant in conversational binary.

3 You could at least give the correct name for this 6128 use, ie, PACKET.

4 GKQ81XXY is not a valid UK call sign.

5 I haven't spent the amount you mentioned on radio equipment.

That leaves two points: if Simon writes such rubbish again, I will be severely disappointed and will attack his hair with a Trim'n'Edge. Oh, and thanks for a great mag.

AJ Clayton, Walsall

PS Please print this letter as a parcel bomb often offends.

And there I was thinking that Radio Hams were over-the-top actors on *The Archers*. Ah well, we live and learn. Dave



Cheated

On phoning you today to subscribe to your magazine, I was informed that I could not have the option of a disc. It said quite plainly in this month's AA that I could have the choice of tape or disc.

Why???

You are trying to get people to phone you under false pretenses by advertising the disc option, when you have no intention of supplying discs.

I am most disappointed in your underhand approach in drumming up more business for yourselves and thinking nothing of your customers.

From a very dissatisfied customer.
R Hamer, Dyfed

I must sincerely apologise for the whole disc subscription offer debacle, but please believe me, in no way

was it an underhand tactic, and we did have every intention of supplying the discs when the magazine carrying the offer was being written. Unfortunately, between the magazine going to press and being published, we discovered owing to the world shortage of 3-inch discs, and the fact the only ones being produced these days are of very dubious quality, it was going to cost us over four times as much to supply people with discs as we had originally been quoted. This, to be honest, was something which we couldn't afford.

So, we had to write back to all new subscribers offering them the chance to cancel their orders. And once we found out

this was the case, no further cheques were paid into our accounts until we had heard back from subscribers.

Once again, I must emphasise that we are sincerely sorry about the whole business, but our intention was to give readers a better service; it was not a scam. The best laid plans of mice and magazines... Dave



EMBARRASSED

I've been reading AA since issue 16 and have some things to say.

1 I think the cover last month was good. I didn't

have to carry my AA around rolled

up as I've had to do a few times in the past.

2 I am a bit annoyed about the new tape covers because they look a bit cheap, but at least they aren't packaged like AA28's (ripped cover).

3 Your mag has got like a leaflet, but the quality factor is nearly 100 per cent.

4 Keep up the good cover tapes. Have you considered putting Red LED, Revolution and Mag Max on them?

5 Now that about four commercial games will be released in a year, how about rereviewing about three games from each issue, starting with issue one?

6 Are there any good CPC emulators available for the PC?

7 I was impressed with the Bizarre section

last month, but did you know that

about seven years ago in Slough

there was a privately-owned

telephone company that used

CPCs to run their exchanges?

They even offered itemised phone bills which BT couldn't do with its technology back then.

8 LET AMSTRAD ACTION CONTINUE FOREVER!

R Jones, Fareham.

1 That's a back-handed compliment if ever I heard one.

2 But these new tape covers are more environmentally friendly.

3 Never mind the width feel the quality, that's our motto.

4 We have now.

5 There is a 'Classic Games' series in the pipeline, in which we'll do more than just rereview the games; we'll put them in their socio-historical perspective. Whatever that means.

6 There are a couple available from Wave Electronics (0229 870000), and we also reviewed a PD CPC emulator last issue (hey - that sounds like another no-to-be-missed chance to plug our wondrous Back Issues ordering service on page 12).

7 Great stuff. Anybody else got any other stories of CPCs being put to strange uses?

8 That's really up to you lot. We'll keep providing the goods as long you keep buying them. Which we hope will be for some time to come. Dave



AMSTRAD ACTION

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Amstrad Action can only take reader calls on Wednesdays and Thursdays on 0225 442244. At all other times you will get an answerphone telling you pretty much what it says here, so save your phone bill, okay. Please note also that this is not a technical helpline! There is no-one in the office who can help you with technical queries. Sorry. Please write to Techy Forum instead.

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AA110 on sale:
Thursday
20th October

ABC 15,168

Member of the Audit Bureau of Circulation Jul '93 - Jan '94

AMIGA MAGS



Amiga Format issue 63 (the October issue) is another stonking issue of the UK's biggest computer magazine! 164 lovingly hand-crafted pages full of

Amiga news, reviews and features. This month we cover DTP, with £100 program PageSetter 2 on the coverdisk, and a huge 7-page feature on Amiga DTP. And AF has the first full review of Amiga Theme Park! Got an Amiga? Get Formatted. £3.95 with TWO coverdisks



The October issue of Amiga Shopper is jolly fab. Our comprehensive supertest will tell you everything you'll ever need to know about expanding your A1200. Plus we give you the full lowdown on how to program in Assembler and the first instalment in our new series on how to write your own chess program. Hurrah! £2.50



The tenth Amiga Power of 1994 is (toot toot toot toooooot...) a THREE DISK SPECIAL! With demos of

Theme Park, Alien Breed 2: Tower Assault, Bubble and Squeak and Ruff 'n' Tumble, there was simply too much to fit onto two disks, so we've had to stick on an extra one. And! Inside the magazine, an exclusive review of the incredible Super Stardust. £3.95 with THREE coverdisks

CONSOLE MAGS



October's Gamesmaster is a Lion King extravaganza, with a totally in-depth look at the game on SNES and Mega Drive, plus a FREE Lion King badge and poster. We've also got the first screen shots of Sonic and Knuckles, a big

review of Urban Strike, one of the best 3D0 titles yet, and a look at how CD interactive movies are made. You can't afford to miss it. £2.25

The October issue of Sega Power is swelling with an oozing stuffing of stunningly erudite, critically caustic, ultra-topical Sega-related stuff (as ever).



Exclusive reviews of Urban Strike and Taz 2, a massive guide to Super Streetfighter 2, the making of a game (in Hong Kong, no less, none of that 'software house down the road nonsense for us) and an update on the progress of wonder-machine, Saturn. It's £2.50. It's out on Thursday, 1st September. BUY IT!



October's TOTAL will feature a six-page feature on the brilliant new Super Return Of The Jedi. As well as this we're giving away a free Super Street Fighter 2 sticker album and stickers. There's also more news, previews and reviews than you can wave a stick at as well as an obscenely large tips section featuring three player's guides. Phwoar! £2.50



Want to find out about the best role-playing game ever to hit a console? Then the October issue of Super Play's the mag you need. Plus, a guide to the anime scene. Mortal Kombat 2 hits the SNES full-bloodedly! Super Street Fighter 2 gets the full guide treatment! It's all in Super Play £2.50

BRITAIN'S BEST-SELLING ST MAGAZINE



FORMAT. Henry Kelly would approve! £3.50 plus coverdisk

GOING FOR GOLD! Each and every FORMAT Gold winner ever rounded up, re-rated and located - so you can get the very best games, applications, utilities and hardware for your machine! If you've got an ST then you owe it to yourself to get hold of October's ST

IF YOU LOVE AA THEN STICK WITH



Whatever other computer you use, and whatever you use it for, you can bet that Future Publishing has got the best magazines to suit your needs...



In the October issue of Future's smash hit, revolutionary CD ROM mag... Woodstock on CD-ROM, multimedia authoring packages, plus the newest titles for kids. We've also redesigned our unbeatable cover disc, which is once again packed with interactive demos of the latest CD software and competitions. Don't miss it! £4.95 with CD ROM

The UK's biggest-selling Mac magazine has this on



offer in October - give your Mac the power to take you into the 21st Century! • Presentation programs - create a slideshow or a multimedia event • What a sequencer can do for your Mac-based music making • How to achieve airbrush effects in your Mac art program • Plus MacFormat's regular coverage of just about everything you can do with a Mac. £3.95 with coverdisks, or £4.95 with CD ROM

PC MAGS



October's PC Gamer is the best yet. We visit top American developers LucasArts and report on their latest games, there's the world's first review of Doom 2, a profile of Doom's producers id Software, a free 16 page CD-ROM supplement and an exclusive covermounted CD demo of World War I flight sim Dawn Patrol. £3.95 with 2 coverdisks



PC Answers takes the world by storm in October with its first ever CD-ROM attached to the cover featuring Illuminatus 2, Zool 2, Desert Strike and the best shareware games ever. Inside the mag you can discover how to upgrade your old slow 386 to a super fast 486 - or even a Pentium, but without having to buy a new machine! All this and plenty more in the November issue of PC Answers, out on sale Thursday 29 September. £3.95 with coverdisks, or £4.95 with CD ROM

PC FORMAT

You wanna know what's in October's PCF? Right, deep breath, here goes: H-U-G-E music/sound feature including reviews on music software for the beginner/intermediate/professional and round-ups of sound cards and speakers. Two disks featuring huge playable demos of Dawn Patrol and Jazz Jack Rabbit - the hottest PC games around. A first look at Click'n'Play, the excellent new create-your-own-games package. Reviews of Microsoft Space Simulator, Desert Strike, NHL Hockey. Erm, lots more but no room left... £3.95 with coverdisks, or £4.95 with CD ROM

THEY'RE ALL ON SALE NOW AT YOUR LOCAL NEWSAGENT!

SERIOUS ACTION

What are you waiting for? Get that covertape loaded now and check out the fantastic software that we've given you this month...

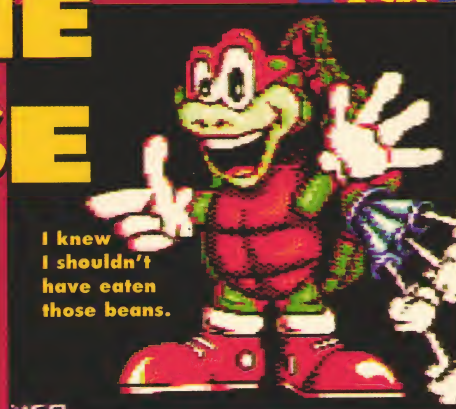
TURBO THE TORTOISE

Turbo was a mistake, a terrible accident of science gone hideously wrong – no, he wasn't taking part in a Tomorrow's World demonstration, he was the subject of an experiment by a mad but benign Doctor. Now he's got super powers that'd put teenage turtles to shame, and he uses them to help his master, the mad Doctor (personally I

would be out of there like a shot just in case another one of his 'experiments' went wrong).

This Doctor also owns a Time Machine (that sounds strangely familiar) and it is this device that Turbo uses to whiz from historical level to historical level in the game. Not that the settings have much bearing on matters. The aim in each level is to get from one end to the

I knew I shouldn't have eaten those beans.



think that the odds are totally stacked against you – there are a fair few energy and extra life bonuses liberally scattered around each and every level.

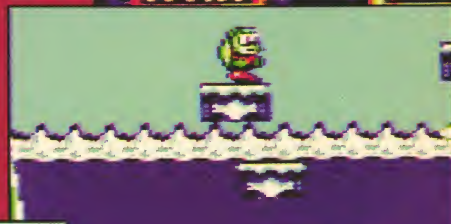
Watch out for secret rooms and

extra weapons to collect along the way to make things a heck of a lot more exciting.

When you begin each level you have no weapons and you have to deal with the nasties in time-honoured platformer tradition – bouncing on their heads. But collect everything in sight, and you'll soon find you've got some form of armament. But be warned – not all your enemies go down with the first hit.

Luckily, you don't go down for the count on a first hit either – if you clash with an enemy you just lose energy. When all your energy depletes, then you're one life down. And when you've lost all your lives it's time for that hibernation from which you'll never wake... until you start the game again, anyway. But don't

invisible blocks – they could be lurking anywhere. And don't think you can never reach a bonus – it'll take either pixel-perfect manoeuvring, some more lateral thinking or an invisible block. Good luck... and be careful out there.



If he doesn't get a move on, there'll be frozen tortoise on the menu.

TURBO CONTROLS

JOYSTICK LEFT	Left
JOYSTICK RIGHT	Right
JOYSTICK UP	Up (and extra high bounces on trampolines)
JOYSTICK DOWN	Down
FIRE	Fire (when you've got a weapon)
RUN STOP	Pause

Loading instructions

To run side one of the tape type RUN"TURBO to load Turbo the Tortoise or RUN"LIFE to load Life. If you type RUN"TRANSFER you'll be able to transfer these two to disc.

Side two, Crossword Compiler, you have to load onto disc so here's what you do: put a data-formatted disc in the drive and RUN"UNPACK. The program will be automatically decrunched and transferred onto disc.

Loading troubles?

We make the greatest efforts to ensure our cover-tapes work properly, but if you've tried all that and your tape's still not loading then pop it in the post (with a note telling us your name, address, type of CPC you use and a description of the problem) to the following address:

**Ablex Audio Video Ltd,
Harcourt,
Halesfield 14,
Telford,
Shropshire TF7 4QD.**

NB When returning faulty tapes could you please also include a stamped, self-addressed envelope. Thank you.

October 1994 AMSTRAD ACTION

CPC 464, CPC 6128, CPC 464 Plus

OCTOBER 1994

SERIOUS

TURBO THE TORTOISE
PLUS
CROSSWORD COMPILER

DISC USED



CROSSWORD COMPILER

Our PD writer, Keith Woods, once described this as probably the best PD application he'd ever set eyes on. One of the reasons he gave Crossword Compiler such a glowing recommendation was because it is packed with just about every option you could

6128 Plus. In theory it will work on an expanded 464, but in practice... that's another story.

You may or may not have to put a copy of BANKMAN.BIN (found on the system disc that comes with your machine) on your Crossword Compiler disc. I say that because, at the time of

writing, Richard Fairhurst is desperately trying to find a way around having to do this, but we can't guarantee success (though I reckon he'll do it – crossed fingers). And now for that

want from a crossword compiler... and that's also one of the reasons why we're going to cop out a bit here.

You see, to explain everything that Crossword Compiler can do would probably take half the magazine, and with pages so precious these days, that seems a bit impractical. But don't panic, because a) we'll give you a few hints to getting started, and b) there are full instructions in the program anyway.

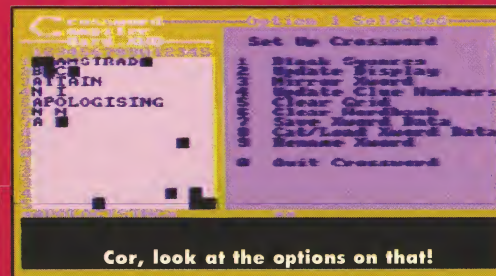
First, let's get this compatibility bit out of the way. You'll need a disc drive to get the thing working, because on tape it exists merely as a compacted program, so you'll need to decompact it onto disc; instructions are given in the box-out on the opposite page. The program will work fine on an expanded 464 Plus, an expanded 664, a 6128 or a

step-by-step guide we promised:

1 After entering the name of your crossword, you'll come to the main menu. The first thing to do is load in the dictionary. Press 5, then 4, then 1, then L.

2 Now it's down to business with designing your crossword grid. Get back to the main menu and press 1 twice followed by Y. Using the cursor keys choose a square and press COPY. Wow, look at that! Blacken a few more squares to come up with a decent design.

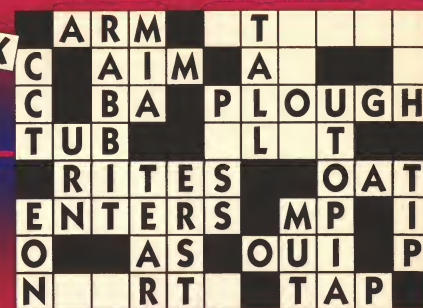
3 Once your grid's ready, it's back to the main menu and time to fill in the words. Press 4 and enter your first word, then place it on the grid using the cursor keys. Press N when asked about the word bank.



Cor, look at the options on that!

No more discs...

The world shortage of 3-inch discs has finally caught up with us, I'm afraid, and we can no longer offer our usual tape-to-disc transfer service. Sorry about that. But from now on, we will make sure that there is also a tape-to-disc transfer program on every covertape.

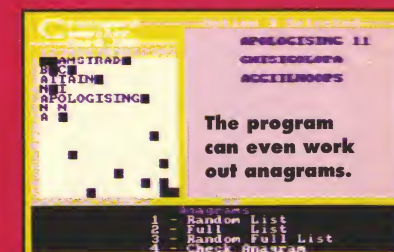


4 When you've entered as many words as you can think of, chances are you'll be left with a few annoying gaps. This is where the dictionary comes in. Go back to the main menu, press 5, then 1 and then 2. Choose a gap using the cursor keys. You'll be given a list of words that fill the gap. Jot down the best one, then go back to the step 3 and fill it in on the grid.

5 All you need now are some clues. Press 6, then 4 and then Y. When the word bank menu comes back press 1 and choose a word. Now press 6 and type in the clue for the word you've just chosen. Repeat this process for all the words.

6 If you've managed to follow all this you should have just finished your first crossword. Go

back to the main menu. Press 1 then 7 and your crossword will be saved (hopefully).



7 Reset your CPC and run the printing program. Follow the on-screen prompts to load in the crossword you've just saved and choose the print-out size and quality and soon you'll have your precious crossword on paper.

8 Now the tricky bit – find someone who wants to try and solve your crossword.

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Radical is still supporting the CPC with new titles. This month we have the excellent Star Driver + the long awaited sequel to Eve Of Shadows - "Butch Cowardice".

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SO SAVE THOSE PENNIES

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AA88: Covertape: Tankbusters, Penguins, JL-Copy (tape to disk utility). Inside: Videomaster, top CPC add-ons. Reviews: The Shoe People, Crystal Kingdom Dizzy, Robin Hood.
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AA97: Covertape: Rik The Roadie (okay, okay), Zzap Assembly, The Simpsons (demo), The Simpsons (demo). Inside: The Simpsons (demo), The Simpsons (demo), The Simpsons (demo).
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AA105: Covertape: Deliverance, Bomber, Basic Utilities. Inside: A complete guide to getting your CPC to communicate with other computers, Megablasters preview.
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AA107: Covertape: Ikari Warriors, Picasso (art package). Inside: The weirdest and most pointless software and hardware ever released for the CPC. Review: Masters of Space.
AA108: Covertape: Fantasy World Dizzy, RoutePlanner demo (128k only), Graph Plot. Inside: RoutePlanner reviewed, getting the most out of your Multiface, a Cheat Mode 'no listings zone' special, the best PD game ever?



Basically basic



Yes, we've escaped Hippy Heaven after last month's sojourn into psychedelia with palette-switching, and are now going to jump head first into symbolism without the aid of a net, or a philosopher. Angela Cook and Rob Buckley do the honours...

The more astute among you may have already gathered that every time you type a character into BASIC, it appears on the screen represented by a group of pixels. These characters are ALWAYS made up of a matrix of 8x8 pixels, which form the shape of the characters, such as A or R. This is very useful if you're writing an accounts package, but totally useless if you're writing a game. So welcome to the wonderful world of SYMBOLS.

I am not a number

Every character on the CPC is represented by a standard number which never changes, a bit like your National Insurance number. The numbers always stay the same, no matter what use you put the character to. These numbers are called ASCII codes, ASCII standing for "American Standard Code for Information Interchange". We can check the ASCII value for any individual character by using this simple line from BASIC:

```
PRINT ASC("A")
```

This will give the number 65 as a response, since this is the ASCII code for A. You can also do the opposite:

```
PRINT CHR$(65)
```

This takes the number 65 and then prints on screen what ever letter it represents, in this case A. When trying various numbers, if you type in a number less than 32 it will produce some weird, but harmless, effects on the screen. For more ASCII codes, look in the User Manual, and put in different numbers instead of 65.

Not very useful you may think. But what if we could make an ASCII character look

like an evil Dave...er, I mean space invader? 10 SYMBOL AFTER 64
20 SYMBOL 65,100,234,10,130,17,12,19,17
Once set, SYMBOL AFTER 64 means that you can change any symbol from 64 to 255.

Right, I bet most of you tried to RUN the program as soon as you'd typed it in, yeah? Ha, try typing a capital A instead (that'll teach you to read things fully first - Dave). The symbol is a complete mess.

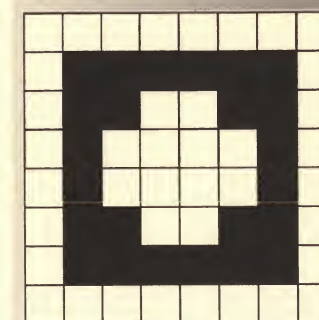
The eight numbers appearing after 65 in line 20 represents the data which forms the new symbol. But how do you know what data will produce which effects? This involves drawing up an 8x8 grid and filling in the pixels to create the desired character (see the diagram). Each block which is filled in is represented by 1. If it is blank, then it's represented by 0. Yep, you've guessed it - we've entered the Binary Zone.

What you end up with is eight horizontal lines that represent eight different binary numbers. These can then be converted from binary to decimal (see the box out), and those values are the ones you need to produce your character.

Do it yourself

In this way you can build up your own personalised character set. But it also means that you can use characters to create graphics as opposed to drawing screens pixel-by-pixel each time. Okay so it might seem like you've had to define each pixel within the character, but once you've done that, you can use it again and again in a screen quite easily - think of game backgrounds that are basically repeated

64 32 16 8 4 2 1 0



= 0 = 0
= 1111110 = 63
= 1100110 = 51
= 1000010 = 33
= 1000010 = 33
= 1100110 = 51
= 1111110 = 63
= 0 = 0

images. Creating graphics this way also saves memory.

Draw a simple space ship:

```
10 MODE 0:SYMBOL AFTER 64:SYMBOL 65,&X11011011,&X01111110,&X01011010,&X01100110,&X01100110,&X11111111,&X10011001,&X10000000:LOCATE 10,12:PRINT "A"
```

Not impressed? We could always draw a bigger character, by designing multiples of 8x8 grids, then placing them side by side:

```
10 MODE 0:SYMBOL AFTER 64:SYMBOL 65,&X00000001,&X00000111,&X00001001,&X00001001,&X00010001,&X00010001,&X00100001,&X11111111  
20 SYMBOL 66,&X00000000,&X11000000,&X00100000,&X00100000,&X00100000,&X00010001,&X11111111  
30 SYMBOL 67,&X11111111,&X11111111,&X11111111,&X11111111,&X11111111,&X11111111,&X01111110,&X00111110  
40 PEN INT(RND*14)+1:FOR F=1 TO 15:LOCATE F,10:PRINT "AB":LOCATE F,11:PRINT "CC"  
50 GOTO 40
```

Lines 10, 20 and 30 are setting the symbols, this does not have to be done in BINARY, it can be converted to decimal. Line 40 is really just setting the inks to a random number, then moving the character across the screen. And line 50 creates a loop so that the program continues to run.



IN FOUR WEEKS

In the next thrilling installment we will look at drawing lines (we will, will we? - Angela) (Yes - Rob) (Are you sure? - Angela) (I'm writing the program! - Rob) (I'm writing the article! - Angela) (Stop arguing - Dave) (Shut up - Rob and Angela) (Sniff - Dave), after that we will try out our new-found skills in palettes and graphics on a rather swanky Space Harrier game. Plus interviews with Scott Bakula and Demi Moore... (well, maybe not).

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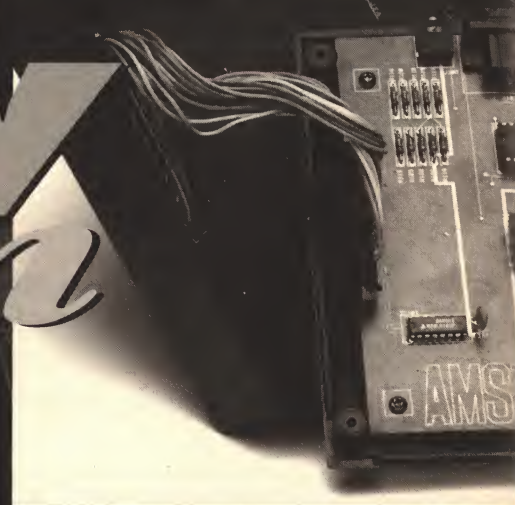
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Techy forum



Can you use a PC to back up your CPC files? How can you recover deleted files? What can you do to make your BASIC programs run faster? All these questions and more get the full Richard Fairhurst treatment...



Watch it, widget

1a I have a CPC 464, a 464 Plus and a DDI-1 with CPC interface. Would it be possible to share a CPC 64k expansion and a CPC Multiface 2 between them if I used a Wave Widget with the Plus? (I do not wish to throw away the CPC, as I have found quite a few games that work on it, but not on the Plus.)

1b Would it also be possible to share the DDI-1 and its interface between the machines, or would I have to buy a modified CPC interface for use with the Plus? (I would not want a Plus interface, because I want to use the Multiface and memory pack with it.)

1c Would the connections get worn down with fairly frequent change-overs? If so, is there any way to overcome this problem?

1d Would a 64k expansion make my

computers 6128-compatible enough to run programs/games which are 6128 only?

2 Do the Magnum light phaser games work on the CPC464 Plus with the newer Trojan light phaser?

3a Do the CTM640 and MP-3 make a TV which is as good as a normal TV?

3b Do the CM14 and MP-3 Plus make a better or worse TV than above?

3c Do you need the keyboard connected to work either of the above set-ups, or can they work simply as monitor and MP-3? **RJ Dalton, Salisbury**

1a The 64k expansion you can use on either, with the aid of a widget on the Plus, although you might be tempted to fit a convenient internal 64k upgrade to your Plus. The CPC Multiface, I'm afraid, won't work with the Plus. If you're worried about Plus incompatibility in games, the resident

hackers at STS (check out the Amscene Directory) will happily make them compatible for you.

1b Again, a CPC interface won't work with a Plus – the internals are different. There's no reason why, with a bit of soldering, a switch couldn't be fitted to the interface to toggle between CPC and Plus compatibility; 'phone around CPC hardware specialists to see if any of them will take it on.

1c Plus connectors are very resilient, and although the CPC's aren't quite so robust, if you treat them carefully then you shouldn't run into too many problems.

1d It depends. The phrase '6128 only' covers two topics – 128k-only programs, which will run on any 128k-equipped computer, and those – such as some type-ins – which require the extra commands of BASIC 1.1 (which anything except a CPC 464 will understand, even a 464 Plus). The great majority of commercial '6128 only' programs fall into the first category, so a 64k expansion is a wise move.

Security alert

I swap PD programs with pen-pals a lot, but a while back one of them told me that they could get at all sorts of programs on my discs that I thought I'd deleted before writing to them. Apparently there is a POKE you can use to do this. But why doesn't deleting a file mean exactly that? How can I get rid of the programs forever?

Tim Woods, Banbury

You may or may not be familiar with the idea of user numbers. If not, here's a brief explanation. Any program or document saved on a disc can be stored in any 'user', numbered from 0 to 15. By default, you save in user number 0 – hence the Drive A: user 0 message we all know and love. It is possible to save a file in another user number, though, and also to move a file from one user to another. The first you do using the IUSER command (eg, IUSER,3) – and the second using IRENAME (for example, IRENAME,"5:PROGRAM","2:PROGRAM" moves the file PROGRAM from user 5 to user 2).

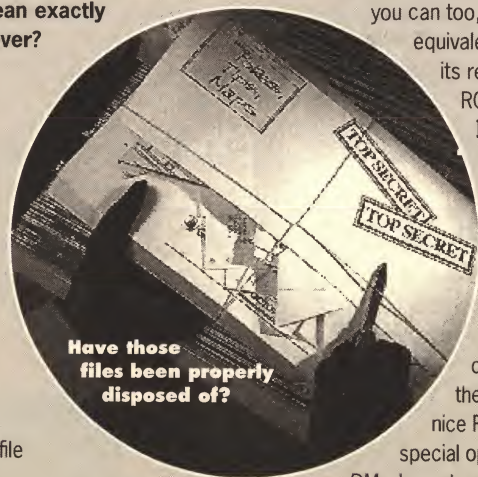
All well and good, but what's the relevance to your problem? Quite a lot, really. When you 'delete' a file from a disc, all the computer does is move it to user area 229, which is not usually publicly accessible. Files in

area 229 are ignored, and often written over, when the CPC is looking for somewhere on the disc to place a new file – before too long, the old file will be completely wiped out.

However, if you don't save anything after deleting files, the originals will still be intact in area 229. This is how your friend found them, and you can too, by typing POKE &A701,229 – which is equivalent to what IUSER,229 would do were it not for its restriction to user areas 0–15 (if you've got ROMs fitted above ROM 7, you'll need to type POKE PEEK(&BE7D)+PEEK(&BE7E)*256+1,229). You can hide files in any of the many other user areas, too, but it's only 229 that's treated as the 'Death Row' of CPC files.

To recover files from this area, either use IRENAME or one of the many PD or commercial programs which offer this service – David Wild's Desk, for example. If you want to wipe all trace of them from the face of the earth, you can use the commercial program MaxiDOS or the rather nice PD sector editor DMon, both of which offer special options to wave bye-bye to unwanted files – DMon's system is slightly more fail-safe. As a last resort, dive into the directory tracks with a sector editor, but take care.

All of which means that you should be careful about deleting incriminating files – make sure they can't be recovered. **Richard**



2 The Trojan Light Phaser, as sold by Trading Post, is exactly the same as the Magnum.

3a Very nearly – the picture quality is surprisingly good (but don't expect Dolby Stereo or Teletext, okay).

3b Slightly better, because the Plus has larger speakers inside the CM14 monitor.

3c They'll work quite happily without the computer connected. **Richard**



Gets your back-up

I have been reading Amstrad Action since issue 76, but after reading your communications feature in AA105, I jumped for joy. There it was, staring me in the face! For months I have been wondering how I could utilise my 486's hard drive to back-up my tape games, since nothing appears to have come of several attempts to produce one designed for the CPC. So I rang around PC PD libraries and purchased the CPC emulator you praised so much, only to run head over heels into trouble.

1 Will a parallel port be able to transport the files to my PC's hard drive from my CPC 464, and how could I do this?

2 How would I hook an external tape deck to my PC and transfer the files through this?

3 While looking through the manual supplied with the disc, I noticed that it could not emulate the CPC's sound. Is there any way of doing this, since my knowledge of programming is very limited? Is there a newer version of the emulator which has ironed out this problem?

4 Will the software supplied with the disc designed for stealing the ROM work on the 464, since most continental CPC users have 6128s? If not, how can I modify this?

Please, please print this, or I may do something serious, like grow my hair long like Simon's.

Steve Letchford, Ferndown

1 No. Theoretically, you could build a parallel input port for the PC, but hacking your tape games so that they can run off a hard drive would be an almost impossible challenge for even the most hardened game cracker (and if you want to try to prove me wrong, by all means go ahead, but don't say I didn't warn you).

2 PCs don't talk to tape decks, and they don't have any facility to do so (except for the very first IBM PC). Sorry.

3 No offence, but if the author of the CPC Emulator – a humungously complicated piece of code – can't emulate the sound chip, then it's not going to be a job for someone whose programming skills are 'very limited'. The problem is not helped by the fact that the standard PC sound specification is worse than the CPC's, until you start adding third-party, and non-standard, sound cards.

We don't know of a newer version, but if anyone out there has one, please contact us.

4 The ROM-napping software will work with either 464 or 6128, but you will need a 3.5-inch



Read all about it

I am trying to load a file into memory and save it out again, for the copier part of a disc utility I am writing. Unfortunately, although I can load binary files and even BASIC programs, things aren't quite so easy when it comes to ASCII files. Is there any way of using CAS IN DIRECT to read the whole lot in at once, or must I use CAS IN CHAR again and again? (It's awfully slow!) Also, is there any way of finding the length of the file?

Tony Cotter, Blackpool

Although ASCII files don't have headers from

which you can fetch the file length, AMSDOS constructs a 'mock header' in its workspace which you can refer to. Its address is returned in HL after you call &BC77 to open the file.

Bytes 64, 65 and 66 store the length of the file – so, assuming that it's not going to be over 64k long, the following will do the trick:

```
push hl: pop ix
ld l,(ix+64): ld h,(ix+65)
```

Using these, it is possible to tell the CPC to accept ASCII files for direct, all-in-one loading of the type you describe. After you've found the length as above, insert this line of code:

```
ld (ix+65),&FF: ld (ix+66),0
```

You can now treat ASCII files in the same way as you would any other. **Richard**

disc drive to get it into the PC in the first place – and you don't make it clear whether you have a disc drive at all.

The best solution for backing up your tape games is to buy a 3.5-inch drive, and either a Multiface or a software back-up utility (such as Bonzo or Soft-Lok). Forget the PC option – it's too much hassle. After all, you don't really want hair like Simon's... **Richard**



Pounds, shillings and pence

I bought a second-hand CTM644 colour monitor which has a fault on the 5v supply. It powers up the computer perfectly well and starts to run a program – then it blips out and the program is lost.

I have overcome this by using the 5v supply from an MP-2 modulator, but do you think that a reasonable cost repair is possible to the monitor?

Cliff Britten, Bath

It sounds like your monitor is tripping – no, not getting high on illegal substances, but engaging an auto cut-out circuit. It will probably only require a small adjustment to the monitor, and since the circuitry's pretty much the same as a TV, you should be able to take it down to a local electronic repairman without incurring the extra cost of using a CPC specialist repairer (not to mention postage). **Richard**



I'm free!

How do I find out how much free space a file will need on disc? I can usually tell with Protext but BASIC doesn't have any such on-screen 'number of characters' display.

Alan Dunn, Sheffield

First of all, type CLEAR to remove any variables. Then type the following:

```
PRINT (HIMEM-FRE(""))-370+128)/1024
```

Round up the result, and that's how many kilobytes your file will take up.

An explanation, please? Certainly, sir. HIMEM is the highest address in memory up to which you can store BASIC programs. Underneath HIMEM in



Hard base

Can you help a man in deep despair? Here is the story so far – about three weeks ago I set out to write a database. It needs to store about 1,200 records of 25 bytes each, giving a grand total of 30k. This just would not work on my CPC 464.

After reading your excellent mag (grovel, grovel), it seemed best to purchase a dk'Tronics 64k expansion. After two days of trying to understand the instructions, I finally understood my task. I rewrote the database so that the actual data would be stored in the extra 64k, and I tested the program and it seemed excellent – the computer didn't crash.

But then came the worst bit of all – the data in the 64k expansion was corrupt, all

around the wrong way, bits missing, wrong characters in each bank, etc. So I checked my program bit by bit and could not find anything wrong, and to this day I cannot understand why the data is being corrupted. It appears that my string variables are being loaded into the banked RAM even when I have not told the computer to do so. Can you think of a reason for this?
Stephen Hemmings, Romford

It's difficult to tell what the problem is without actually seeing the program, especially because the dk'Tronics software is rather primitive and not best suited for database storage; the convoluted way of addressing the unit offers a million-and-one possibilities for why it's going wrong. One thing to check is whether you are setting the string variable to a sufficient length before reading it in from the extra banks, which is an easy thing to forget.



Alternatively, dump the whole lot and use the following method instead. Run this, and three new commands will be available to you. IFORMAT wipes the extra 64k. To place a string – maximum length 25 characters – into the 300th record, type `IPUT,Pa$,300`. To read it back, try `b$=SPACE$(25): IGET,Ob$,300`. Records are numbered from 0 to 2620, which should prove more than adequate!

```
100 MEMORY &9FFF:r=0
110 FOR n=&A000 TO &A0E6
120 READ a$:p=VAL("&"a$)
130 POKE n,p:r=r+p
140 NEXT:READ c
150 IF r<c THEN PRINT "Data error!":STOP
160 CALL &A000
170 :
200 DATA 01,0D,A0,21,09,A0,C3,D1,BC,00,00
210 DATA 00,00,18,A0,C3,25,A0,C3,44,A0,C3
220 DATA 70,A0,46,4F,52,4D,41,D4,47,45,D4
230 DATA 50,55,D4,00,01,C4,7F,ED,49,C5,21
240 DATA 00,40,36,00,11,01,40,01,FF,3F,ED
250 DATA B0,C1,0C,79,FE,C8,20,EB,0E,C0,ED
260 DATA 49,C9,CD,98,A0,E5,DD,6E,02,DD,66
270 DATA 03,46,23,5E,23,56,E1,0E,19,78,B7
280 DATA C8,CD,A9,A0,B7,28,06,12,13,05,0D
290 DATA 20,F1,DD,6E,02,DD,66,03,3E,19,91
300 DATA 77,C9,CD,98,A0,E5,DD,6E,02,DD,66
310 DATA 03,46,23,5E,23,56,E1,0E,19,78,B7
```

```
320 DATA 28,0A,1A,13,CD,C8,A0,05,0D,20,F3
330 DATA C9,AF,CD,C8,A0,05,20,F9,C9,DD,6E
340 DATA 00,DD,66,01,E5,29,29,29,E5,29,D1
350 DATA 19,D1,19,C9,C5,E5,47,7C,E6,C0,07
360 DATA 07,C6,C4,4F,7C,E6,3F,F6,40,67,78
370 DATA 06,7F,ED,49,7E,0E,C0,ED,49,E1,C1
380 DATA 23,C9,C5,E5,47,7C,E6,C0,07,07,C6
390 DATA C4,4F,7C,E6,3F,F6,40,67,78,06,7F
400 DATA ED,49,77,0E,C0,ED,49,E1,C1,23,C9
410 DATA 27152
```

To save the data, use a loop which IGETs each record in turn, and writes it to an open file – to load, open this file, and IPUT each record. I hope this proves to be a little less troublesome. **Richard**

AA

Tormented by techy troubles?

Ignorance is bliss? Rubbish? What's so great about having a techy problem you can't solve? If you've got a CPC problem, spurn those old clichés and seek the knowledge which Richard 'well I'm perfectly happy' Fairhurst is only too pleased to dispense every month. Write to: **Techy Forum, Amstrad Action**, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Good samaritans' department

Dear Techy Tips,

The letter from Miss Strait-Jacket Cox(?)

prompted me to write in with a little hardware hint I have passed on to a couple of other 6128 owners. I incorporated a switch in my 'custom tape lead' (don't blow a raspberry, it makes your AA soggy and hard to read) so I can rewind/fast forward while the 6128 is loaded or running.

All you need are two 3.5mm and one 2.5mm mini-jack, a 5-pin DIN plug, suitable wire (from a dead joystick, perhaps), a small switch (all low voltage stuff), a sheet of 40 thou 'plasticard' and some liquid poly from your local model shop. Soldering iron and solder are needed for the electrical side, but maybe someone can help you with that?

The plasticard is used to make a neat little insulating box around the mini-jacks and wires, and supports the switch which is soldered in parallel to the remote jack. Easy, innit?

Hint 1: fit the mini-jacks in the recorder, then cut the base to fit. Hint 2: don't glue the top on your box before the soldering is done. It messes up the soldering iron and makes dark grey smelt.

Seriously, though, if you make the wire the right-length for your set-up, it really looks neat as well as being useful, and saves wear and tear on the lead and sockets. I reckon I made mine for £5 with components at high street shop prices, but I already have the plasticard and liquid poly. **BJ Coussell**

Thanks very much. BJ also kindly enclosed a (very well-crafted) lead for Miss Cox. So, Miss Cox, if you'd like to get in contact with us again, we'll send it on to you. And are there any CPC hardware companies listening out there...? **Richard**

The origin of several species...

"But what did the CPC ever do for us?" your average console owner might ask. The answer – a hell of a lot. **Simon Forrester** proves how the CPC has influenced a whole generation of computers and consoles.

Okay, I'm not going to try to fool you people – I'm not using a CPC to write this feature. However, having ventured through STs, PCs, Apple Macs, various consoles and the like, I can't help feeling that for all their extra memory, speed and pointless buttons on their keyboards or joysticks they don't actually do anything the Amstrad couldn't do, albeit, a bit faster. Okay, a lot faster. But that's not the point. The point is that the Amstrad CPC, though on the, shall we say, blunt edge of technology, has contributed to the general world of the home computer in more ways that you could ever have realised. There are very few games, applications or utilities that don't have their roots in software that first came out on the 8-bit machine years ago. Things have got bigger, faster and more complex, but the ideas really haven't changed that much. Over the next few pages, we're going to see exactly how the CPC has affected every other machine on the market to date, and how its legacy will live on forever. Well, for quite a while, anyway.

Get yer bits out

Let's face it, the CPC was at the forefront of the home computing revolution. The ZX81 was all very well for propeller heads, and the BBC filled in for school teachers, but it wasn't until the CPC, C64 and Spectrum came along that the real computing revolution took off. The machines themselves set various precedents for computing that still hold true today:

● **AFFORDABILITY** – Though the CPC was the more expensive machine of its time, affordability was one of the most important criteria for getting computers into the home. Though you could have gone out and bought a nice, room-sized machine with twice the capabilities, no-one wants to – a few hundred on an affordable, capable machine is money well spent. Which is why the majority of people are happy to play a shoot-'em-up on the SNES rather than spend several hundred on a Neo Geo (which most of you probably won't even have heard of – sure it's a superb games machine but when only members of Middle Eastern royalty can afford it, it has about as much influence over the development of computer games as a pint of flat Guinness).

● **EASE OF USE** – In 1985, the computing revolution was only just happening. The biggest problem the designers of our wonderful machine faced was that 90 per cent of the general public would be completely alienated by anything even

vaguely complicated. The CPC in particular had the obvious answer to this problem, with one of the easiest interfaces to get around (loading software and simple programming), which is now the ultimate goal for every machine released, ever. Strangely this was something Commodore could never quite the hang of; the C64 would never settle for a simple command when a three lines of typing would do the same job, and there should be Open University courses in finding your way around the Amiga's Shell.

● **A SOFTWARE BASE** – Obviously, a computer is nothing without software to run, and the next big problem the 8-bit revolution faced was exactly that. Availability of software depended largely on getting as many people producing software as possible. If you take a look at any of the popular formats today, you'll notice that virtually all the people producing the games being released all started out on 8-bit machines, either writing for them or at the very least playing them. This is probably the 8-bits' biggest

The Codemasters syndrome...

Ooh, I hate to do this. You see, though blame can be attributed to many other machines, the CPC really has got to take a huge chunk of the responsibility for, yes, *Dizzy*. Like many other games (which we'll come to later) the *Dizzy* series was originally developed closely with the CPC, which is why the CPC versions make use of the machine so well and why other machines suffer versions that are never quite as good.

When it comes to companies like Codemasters that have sprung up from kids in their bedrooms

knocking out good, playable games, the CPC really was the best – its architecture lends itself perfectly to the idle creator, its firmware giving the Z80 base of the machine more power than any other processor in its class (the Nintendo GameBoy, by the way, has the same Z80 chip – just thought I'd mention it).



contribution to the computing world – an industry that was built on machines like the CPC.

● **GAMEPLAY** – I'll be going into this subject in a bit more depth later, but basically, the games released on the 8-bits laid down the ground rules for computer games that are still being adhered to today. Sure, the increased power of the consoles means that the latest smash hits can come up with gimmicks that would be impossible on the CPC, but that's all they are, gimmicks. The basic gameplay hasn't changed. The consoles haven't created any new genres. Platformers, beat-'em-ups and driving games are as popular now as they were years ago. And the consoles continue to plunder the back catalogue of 8-bit games with increasingly less subtlety – hence *Donkey Kong Country*, *Super Drop Zone*, *Super Pang* (which is undeniably inferior to its 8-bit predecessor)... in fact, before long, you can bet that your favourite 8-bit game will turn up on a console with the word *Super* bunged in front of it.

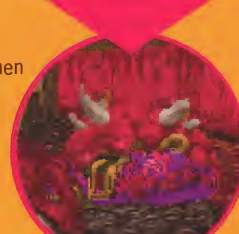
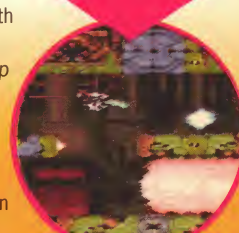
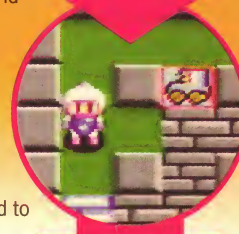
Solid design

There comes a point, though, when we have to ignore the rest of the market. There comes a point when you have to repel borders and go it alone, getting rid of the Speccy for the worthless hunk of over-heating plastic it is, and chuck the C64 over the side of the boat because, well, it's Commodore, isn't it?

The fact is, the CPC really was the first machine to ever find a solid design, losing the many problems we suffered with the other machines:

● **BBC Micro** – you think you have problems with our covertapes? Nothing ever loaded on a Beeb.

● **ZX81** – RAM pack wobble! Dodgy loading! Dodgier saving! 1k of



Top Tips

10 TOP TIPS FOR SPEEDING UP BASIC

And in the spotlight this month, a special guest appearance from Chris Morgan of Aldershot, whose speciality subject is making BASIC programs run faster – without the hassle of compiling them or the difficulty of learning machine code. Your 45 seconds start now.

1 Most programs use integers (whole numbers), but are treated as real numbers (fractions and the like – Richard), taking longer for the computer to calculate them. By using the command `DEFINT a-z` at the start of the program, you can tell the computer that all variables are integers.

2 If you're using a formula to work out several values within a program, these values can be calculated at the start, increasing the running speed. To do this you must use an array. For example, if several circles the same size are needed, the appropriate values can be calculated, put into an array and used.

3 Graphics can slow a program down. When you want the character to move a pixel at a time, define the character with an empty border, to avoid deleting it (assuming there is no background).

4 Make a note of the resolution of the screen mode. In mode 0 you can move four pixels horizontally, two pixels in mode one and a measly one in mode two. You can move two pixels vertically in any mode.

5 An easy way of getting the screen to scroll vertically is by using ASCII characters 10 and 11. When using these, avoid scrolling windows, as opposed to the whole screen, as it makes a noticeable screen difference.

6 The control codes are useful for saving valuable time. They are listed in the manual. (For example, if you want to change to Pen Two in the middle of a line of text in a `PRINT` statement, all you have to do is type `CTRL-0` followed by 2 – Richard)

7 `REM` statements slow a program down, so avoid them within the main loop, and make sure you always `GOTO` or `GOSUB` the next line.

8 Try to use short variable names.

9 Make use of all the commands.

10 Finally, there are occasions when there is more than one possible solution to a programming problem. Testing to find out which of the routines is quickest is easy. All you need to do is insert `t1=TIME/300` at the start of the routine, and `t2=TIME/300:END` at the end, then run the routine. Afterwards, in direct mode, type `PRINT t2-t1` for the time taken for the routine. Do this for alternative routines, and then delete these lines.



memory! No sound! No colour! Thank God they superseded it pretty darned quickly.

● **Speccy** – The benchmark test for a Speccy refers to the enormous charred scar it left on the table when it burst into flames after working at full pelt for, ooh, about ten minutes.

● **C64** – The one machine that could be guaranteed to be utterly incompatible with everything you tried to plug into it, from tape decks, to printers. Its version of BASIC was a joke as well.

The CPC on its own has an amazing legacy, taking credit for a lot more than you'd have thought. If you're lucky enough to own a CPC, keep hold of it – it's responsible for a hell of a lot, including...

Freescape

As you begin to see more and more of magazines like *Edge* and *GamesMaster*, you'll read more and more about virtual reality. Those that haven't seen or heard of it before won't have a problem coming to grips with the idea – imagine playing *Driller* wearing a helmet that produces the graphics and moving around the environment using your feet on, say, a treadmill rather than typing in the direction commands on a keyboard – it's supposed to make you feel like you are really inside the digitally created environment. Virtual Reality has very real advantages for everyone on the planet – architects can wander around buildings as they're designing them; training sims can be even more realistic.

So what did your CPC have to do with VR? As far as modern VR is concerned, your CPC is utterly

incapable of helping you – it has neither the processing speed or the storage capacity to ever handle the kind of image processing and updating you'd need. What can't be denied, though, is that we saw it all here first.

Driller – remember that one? Incentive Software spent a long time building up to what turned out to be one of the most innovative games ever written, and they did it on a CPC. Though nowhere near as advanced as the games in the same range that followed shortly after, *Driller* was the pioneer of a 3D perspective graphics system called *Freescape* – a graphics system originally conceptualized, developed and released on the CPC.

Some might say that it's a bit of a tenuous link between *Freescape* and VR – well, they can go and stick their heads in a bucket full of maggots, because they're wrong, frankly. *Driller* was, in every

Sounding off

Let's take the casing of the machine for a few moments, shall we? If you can get your machine to beep, you can take it from me that the CPC's sound chip, the AY10150, will be working overtime. If you open up a 16-bit machine (the Amiga will do), and get the thing to beep, you can take it from me that the Amiga's sound chip, the AY8910, is working just as hard. The legacy of the CPC is more than a few gaming genres, you see – for a machine that's supposedly technically incompetent, there are a hell of a lot of people taking tips from the design, aren't there?

sense except not having to wear a daft helmet, VR. It had a complete 3D world which you could walk around and look at from any angle – what more do you want from VR?



Shadow of the Beast – written on a CPC, it helped launch hundreds of Amigas.

Beastly shadows

Several years ago now, though the CPC was drawing to a close as far as the major software industry was concerned, Gremlin Graphics produced a game for the CPC called *Shadow Of The Beast*. More importantly, they didn't just produce it for the CPC – they produced it on the CPC as well. So what?

Shadow Of The Beast was a top-selling game – everybody loved it. And it was probably the game responsible for getting more Amigas sold than any other, but it was primarily developed on the CPC. And its influence lives on; the sideways-scrolling adventure-puzzler is still a staple diet of computer games, and things like *Donkey Kong Country* on the SNES keep the genre going strong.

Locomotive BASIC

What's the first thing you see when you turn on your machine? It's not some naff, unhelpful DOS prompt,

but BASIC – Locomotive BASIC. The thing about this wonderful programming language we've grown to know and love is that there's no accepted standard – versions of BASIC change dramatically depending on who wrote them.

The important thing about Locomotive BASIC is that, though it was obviously never copied outright by anyone for legal reasons, it's set a standard for home computers as far as the language was concerned. Syntaxes, string handling (MIDS for example), and even text formatting (USING, etc), were slowly reaching fruition when the BBC Micro hit the scene, but you can be guaranteed that if you know Locomotive BASIC, you won't have any problems with any other version of BASIC after that – it's the accepted standard.

Locomotive Software themselves are still around, having taken their initial footing with the CPC and carried on from there, working with CP/M in a big way, and more recently dealing with machines at the higher end of the market.

Amstrad

The Spectrum. Love it or hate it (or love to hate it), you do have a certain affiliation with the machine – when Amstrad bought the company several years ago, they re-released the Spectrum, the machine supporting Sinclair at the time. Looking more like the CPC than ever before, the machine then went on to a second lease of life, finding success in the tried and tested formulas Amstrad had used on the CPC. People remember the Speccy – they never actually use them, do they?

Future Publishing

We're dead good, we are. Future Publishing shifts over a million magazines a month, making it Europe's largest consumer magazine publisher. Not we don't want to blow our own trumpet or anything, but this massive publishing empire, giving help and advice to a nation of computer users, console players, mountain bikers and needle crafters alike (nothing's more fun than crafting the odd needle). The really scary thing is, the whole thing started 109 months ago in deepest Somerset with Chris Anderson, a bank loan, a stack of CPCs and a copy of Amstrad Action. Something else the CPC should be credited with – the magazine you're holding, and the jobs of the people who write it.



The point is, the CPC gave the Spectrum more than just a few gameplay ideas and the occasional design point – it kept it alive for a long time, turning the machine from a box near obsolescence to the over-acclaimed and loved machine it was in the end.

Physical design

It's time for pure conjecture here, but consider the design of the CPC's contemporaries for just a few minutes. When you look back, you'll find that physically, the CPC had something none of the other machines of its time could boast. Whereas the

Spectrum and Commodore combined both the processor and keyboard in one box, the CPC went one stage further, throwing a tape or disc system into the deal. What's the point?

The advantages of the set-up, apart from the lack of wires and the extra desk space you'll gain, are minimal. The important factor here is that, when you look at the machines that followed, such as the ST, Amiga, Archimedes, Sam Coupé, etc, they all followed the new design standard, fitting as much into one box as possible, eliminating the need for complex wiring and hasslesome set-up – you just plug in your machine and go.

The CPC, you see, was the cause of the only other packaging standard to oppose the PC (processor box, screen, and separate keyboard), and this new style of set-up certainly seems to have caught on in a big way.

So there you go, then

The next time someone slags off the machine you're using, you can show them this feature – nothing is original, and the industry that puts itself way above the means of the average computer user should remember where it all started. Sure, things have come along way since Alan Sugar launched the CPC way back in 1985, but things have got this far for a reason – ours were the machines that started this industry, and the legacy of the CPC still lives on through everything that's released on the most complex, powerful machines today.

So when you turn up at the Future Entertainment Show (wonderful, 26th October onwards, 0369 4235 for tickets, we can't miss an opportunity for a plug, etc), you can walk around, chanting smugly; "I did that..."

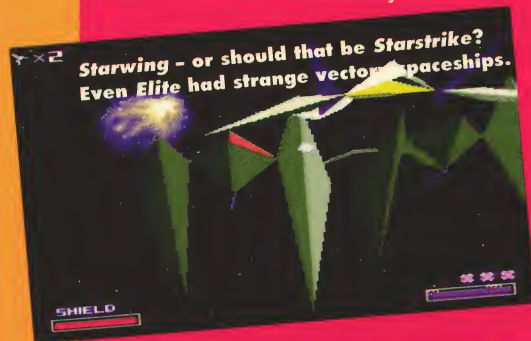


We were there first

We really could carry on with the principles of game design and how the CPC defined most of them for the rest of this mag. Console machines themselves owe more to the CPC than you think; the CPC, for example, was the first to make proper use of the EPROMs you'll find in any console game cart; EPROMs that are essential to the way these new formats work.

Hardware developments aside, every new game that breaks big on the latest generation of consoles owe a big debt to the CPC and it's 8-bit siblings. Besides the cases we've mentioned elsewhere, think about this little lot...

● **Starwing** – It's another SNES game, this time using the SuperFX chip, predecessor to the one we've just talked about. Hmm – a filled polygon 3D shoot-'em-up in space, involving not only chasing enemy ships and blowing them away, but flying down tunnels destroying enemy installations and escaping the resulting explosion. Yeah, right – am I dreaming, or was I playing 3D Starstrike before the SNES was a twinkle in Nintendo's eye?



Starwing – or should that be Starstrike? Even Elite had strange vector spaceships.

● **Secret of Mana** – One of the largest console games ever, Mana involved a group of people wandering around with weapons, statistics and the like, following a storyline, defeating strange enemies in a style closer to an RPG than an arcade games. That'll be Heavy On The Magick, then, I reckon.



The real Secret of Mana is that it owes a lot to an old 8-bit game. So now you know.

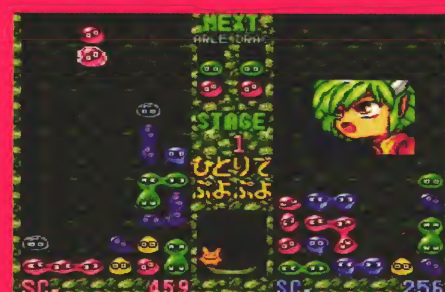
● **Doom** – If you've never played Doom on the PC (and soon on just about everything else), you really ought to. Wandering around an enemy fortress butchering bad guys in full 3D-O-Vision is something you have to do before you die. If you're stuck on a desert island with only 10 minutes to live and only a CPC in sight, though, just load up Bloodwych, because it's all very much the same thing. Are you getting the picture yet?



Wandering around maze-like levels killing people was popular way before Doom.

● **Sonic The Hedgehog and Super Mario** Whatever – Cute platform games sure. But all character-led platform games everywhere are really derived from Manic Miner. And if you're going to get picky and bring up multiple-screen scrolling and exploring-a-strange-and-bizarre-new-world-angle, well, obviously we're talking about Jet Set Willy, aren't we? And then Bubble Bobble and Rainbow Islands came along to refine the genre into the form that is we know and love today.

Sonic owes a lot to an old miner.

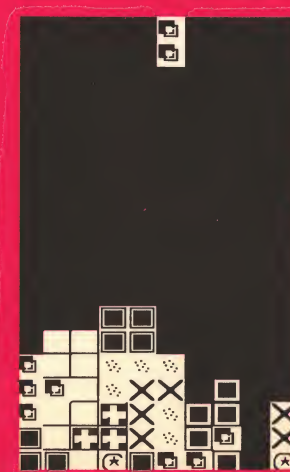


Puyo Puyo is basically Japanese for "here we go with yet another spin off of Tetris".

● **Puyo Puyo**, Robotnik's Bean Machine, Columns, Pac-Attack – you name 'em, they're all critically adored things-falling-from-the-top-of-the-screen-and-being-joggled-around-with puzzle games. But all those games are just sons of Tetris, and we all know where Tetris first appeared – repeat after me: 8-bit home computers.

● **Super Bomber Man** – One of the world's all-time classics, undoubtedly. And a completely original concept

Tetris – just as good on a mono screen.



Super Bomber Man: modified by Hewson from one of their old games.

too, surely? Nope. Go back to about 1987 and you might be surprised to stumble across one of the world's 17 sold copies of Eric and the Floaters, the game that Hudson soft stole from themselves and stuck a four-player option on to turn it into the most social experience ever achieved with a video game.

● **R-Type 3** – A smashing thinking-player's shoot-'em-up where the player takes control of a powerful ship and infiltrates a complex enemy base,



Cybernoid and R-Type 3, but which is which?

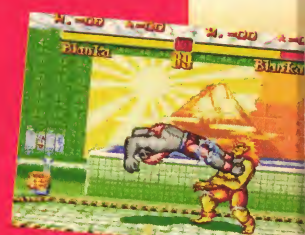
switching between an array of extra weapons to find the best one in each particular situation. Cybernoid, in fact.

● **Every tedious scroll-along beat-'em-up ever from Golden Axe onwards** – Melbourne House's ancient (and crap) Fighting Warriors began all that nonsense.

● **Super Street Fighter 2 Turbo Hyper Fighting Champion Edition X** – Oh come on, surely we all know this one by now. Every one-on-one beat-'em-up ever follows a direct lineage from Way of the Exploding Fist and IK+ – the only differences are better graphics and ludicrous moves that you only ever do by accident while trying to negotiate your way around the joystick's 23 different

buttons. And you still win by doing a flying kick.

If there are any readers out there who'd like to dispute any of these claims, please feel free to write straight to me personally, care of Future Publishing, because I'll be happy to point out even more example of the way consoles have plundered the 8-bits for all their best ideas. In fact, if you reckon you've played a console game that bears more than a passing resemblance to a CPC classic, why not write in and let us know about it – we love stirring things.



SF 2 – do we really need all those moves?



IK+, the great granddaddy of all beat-'em-ups.

Typing listings

If you've never typed in a listing from AA before, then reading the following blurb is a REALLY GOOD IDEA.

● Basically, all you need to do is make sure you type in exactly what we print EXCEPT the first four letters in each line.

● The first four letters are a code which work in conjunction with our unique and utterly excellent TypeChecker program below.

● Only press RETURN when you get to the end of a command line. If a command line goes on to two lines do not press RETURN at the break in the line. Your lines on screen should break in exactly the same place as they do in the mag.

● The dots you see in some lines (like the one between well and done in PRINT "Well done") indicate spaces. The dots are there so that you don't have to guess how many spaces to put in when there are more than one.

TypeChecker

This program lets you to check whether you've typed AA listings in correctly. Type it in, then SAVE it for future use. When you want to double check that you typed a listing in correctly:

● Load up TypeChecker.

● Type NEW.

● Type in the listing of your choice.

● When you've finished type LIST.

● At the end of every line a highlighted code will appear. It should correspond with the code printed in front of the same line in AA. If it doesn't you have typed in that line incorrectly.

PAML 10. TypeChecker V1.0 - By Simon Forrest
er - Dec 1992

MAOJ 20. For Amstrad Action - Public Domain
DANK 30 MEMORY & 9FFF

CAJK 40 csum=0

GAME 50 FOR addr=&A000 TO &A05B

DANJ 60 READ byte

GAJB 70 byte=VAL("&"+byte)

FACF 80 POKE addr,byte

GAFB 90 csum=csum+byte

DALK 100 NEXT addr

OACI 110 IF csum()&2ADD THEN PRINT "Checksum Error":END

LAHE 115 POKE &A001,PEEK (&B5B):POKE &A002,PEEK (&B5C)

KAHI 120 POKE &B5A,&C3:POKE &B5B,&3:POKE &B5C,&A0

MACN 130 PRINT "TypeChecker V1.0 Installed":END

MABC 140 DATA CF,FE,93,FE,0A,CA,00,A0,F5,C5,D5,ES,FE,0D,CA,22

LACJ 150 DATA A0,5F,16,00,2A,5A,A0,19,22,5A,A0,E1,D1,C1,F1,C3

LAJF 160 DATA 00,A0,3E,20,CD,00,A0,3E,18,CD,00,A0,2A,5A,A0,7C

LADI 170 DATA CD,45,A0,7D,CD,45,A0,3E,18,CD,00,A0,21,00,00,22

LACN 180 DATA 5A,A0,C3,1B,A0,F5,E6,0F,C6,41,C0,00,A0,F1,E6,F0

KAJC 190 DATA 1F,1F,1F,1F,C6,41,CD,00,A0,C9,00,00,END

Turning TypeChecker off (it is automatically initialised when you RUN the program above) and back on again is quite simple:

POKE &B5B,0 To turn it off

POKE &B5B,3 To turn it back on again

Isn't science amazing? (Now don't argue.)

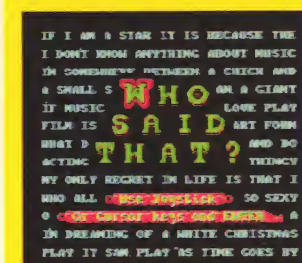
Amscene Extra

Improved Design

MicroDesign Extra is now available from Campursoft. It provides many extra and improved features over the standard MicroDesign, such as inch-high fonts and a larger variety of fonts including Times (which looks like this in case you were wondering). It'll set you back just £14.99 on 3-inch disc and £13.99 on 3.5-inch disc. Campursoft can be contacted on ☎ 041 554 4735. And hopefully we'll have a review for you next issue.

Don't quote me

Coming soon from Radical Software is a new quiz game called *Who Said That?* It's all about recognising famous quotations, and from what we've seen so far, the presentation is very slick. It should be available by the time you read this, so give Radical a ring on ☎ 081 856 8402. And guess what? There'll be a review next issue.



Did you know that Bogart never actually said, "Play it again, Sam"?

So why do I need a ROMboard?

Speed, power, convenience, and other active buzzwords that marketing people like - all these apply to ROMboards without the merest hint of an advertising exec straining for effect. And Richard Wildey's here to tell you why your life isn't full without one...

If you've just got Protex and ROMDOS sitting in your ROMboard and a row of empty slots it's time to do something about it. What do you mean, you haven't even got a ROMboard?

The least every CPC user owes themselves is a ROMboard containing Protex and ROMDOS.

Unfortunately finding a good, reliable, supplier for both ROMboards and ROM-based software these days is the main problem. Your best bet is to tawl the small ads column of this fine magazine and try to beat 15,000 other AA readers to the telephone.

ROMboards (or boxes as they're sometimes called - they're essentially the same thing) plug into the back of your CPC and have a number of

slots (usually eight) into which you can insert 16k chips - the ROM chips - which contain all manner of impressively fast and powerful programs. Prices for ROMboards vary, but you should be able to get a decent one for about £20, and no way should you pay more than £100.



Protex

Most ROMboard owners already have Protex, and quite rightly so; the ability to flick in and out of Protex without losing your BASIC or machine code programs in memory make it a godsend. Arnor also

made other ROMs to complement Protex which are less widely used. Promerge allows you to have two documents in memory at once as well as

giving you extensive mail merging facilities. Prospell is a spelling checker - the main program is on ROM while the dictionary is stored on disc.

ROMDOS

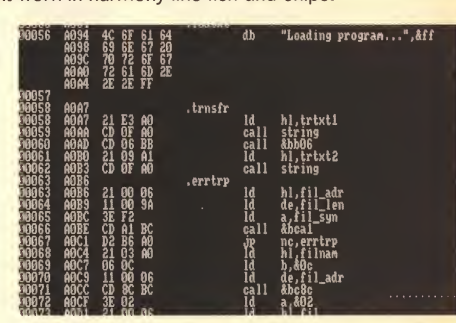
ROMDOS is an essential program if you want to use 3.5-inch discs, definitely the next thing you should purchase after the disc drive itself. It allows to do all those tedious disc operations with the minimum of hassle. It's available on disc as well (as RAMDOS) but frankly, if you're serious about your CPC, you need to get the ROM version.

Programming tools

CPCs crash far more often when you're working in Machine Code rather than in BASIC (or at least, that's what I find, but then again maybe that's just my coding). Having an assembler which you can access instantly will save you an awful lot of time loading from disc.

Arnor's ROM-based assembler Maxam 1.5 and Protex work in harmony like fish and chips.

Rather than using the pretty clumsy text editor which the standard version of Maxam gives you, new



Maxam 1.5 - crying out for Protex.

Maxam 1.5 allows you to use Protex and so lets you create longer source code while giving you the speed and flexibility of Protex.

The other ROM machine code users will want is HackIt. HackIt, unlike most ROMs, is a foreground ROM. This means that with the flick of a switch it will replace the BASIC ROM and appear automatically when you do a soft or hard reset, leaving all memory intact ready for you to disassemble and edit.

Foreground ROMs

A foreground ROM is one which is initialised as

soon as your computer is

turned on; most of the time with a CPC this will mean the BASIC ROM, the front end of the CPC - Locomotive BASIC. Campursoft have recently brought out their Graphical User Interface (GUI) DES which is also a foreground ROM and which is therefore available to the use immediately when you switch on your CPC.

Other people have written WIMP systems; in the Public Domain we have the highly acclaimed, but somewhat bugged, DW Desk and the slower Worktop. The trouble with these is that they don't come on ROM which means that they must be loaded first which rather defeats the object. Stick with ROMs, that's our advice.



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		of Adrian Mole	Thrill Time Gold 3
		Movie	
		No Limits	
		Overlander	
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		Postman Pat 3	
		Postman Pat 4	
		Postman Pat 5	
		Postman Pat 6	
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Blowing your own

Contrary to popular belief, you can put both BASIC and Machine code programs on ROM yourself - it's not that tricky. Each ROM can hold up to 16k of data, programs going over this limit can be spread across a number of ROMs, which is what Graduate Software did with CP/M on ROM. To 'blow' a piece of software onto ROM (as it's technically referred to) you'll need a blank EPROM, a ROM blower, ROM blowing software and an EPROM eraser in case it all goes terribly wrong.

Blowing and erasing ROMs can be a timely practice so a RAMROM is also useful. A RAMROM is a piece of hardware that tricks a portion of your RAM into thinking it is ROM, and can be therefore programmed just as quickly. The RAMROM is not as volatile as RAM; it will survive a soft reset but not powering down the computer.

Blowing a ROM can take anything from 40 minutes to four seconds, it all depends on the software. Fortunately for us the four second version is public domain - The Stormin' ROM Programmer written and distributed by Robot PD should set you back less than 50p. This software is designed to write machine code programs to ROM.

To program a BASIC program into ROM you must do the following before hand:

1 Calculate the address of the last byte of the BASIC program in memory. This can be found by adding the total length in bytes to &170.

2 Move the BASIC program to &C020.

3 Put an LDIR routine at the start of the program, &C000, to move the BASIC program from &C020 back down to &170.

4 After the LDIR subroutine poke the address calculated in step one into the following address (which differs depending on which flavour of CPC you're using):

Machine: 664/6182

Address: &AE66

&AE68

&AE6A

&AE6C

Machine: 464

Address: &AE83

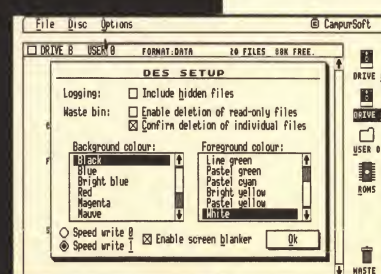
&AE85

&AE87

&AE89

5 Finally POKE &C9 to end the machine code program at &C01F.

All you have to do now is blow the ROM as normal. After issuing an RSX, which you, or the programming software, would have set up as if you were writing a normal ROM, the program can be LISTed and RUN as any other. The John Morrison (that's John, not Jim) ROM-blowing software contains a program to do the above for you but this is, I'm afraid, the software which takes 40 minutes to do its stuff.



DES - a foreground ROM.

Assembly line SPECIAL

Cut down to size

Our regular look at the world of Machine Code goes all arty in the first of a series of specials which concentrates on CPC graphics. Cue lots of 'Pixel Picasso' and 'Digital Da Vinci' jokes from Rob Buckley...

Assembly on-line

Well, we're not really on-line (though AA will be soon, so keep your eye on Amscene) but as a headline it sounded better than Assembly Post Box. Anyway, here's a letter which was addressed to Assembly Line. Perhaps it should have gone to Techy Forum, but who cares? It's mine now to do with as I will. And if you have any Machine Code specific problems, by all means send 'em my way (oi, that'll just leave me with loads of questions about printers - Richard). Write to Assembly Line, Amstrad Action, 30 Monmouth Street, Bath, Avon, BA1 2BW.

● How do I store four screens in the extra 64k of my 6128 and then display them quickly enough to do animation?
John Reilly, Barnstaple

Here's a small routine which will do just that. It has two routines one called STORE and the other RECALL.

The small assembly listing simply uses the Bank switch method of:
LD BC,&7f00 LD A,&c4 OUT(C),A
It then copies 16k from &4000 to &c000 or vice versa. The bank switch is turned back to normal by:
LD BC,&7fc0 OUT(C),C

Assembly listing:
Store:ORG &a000
LD BC,&7f00

```
LD A,(IX+0)
ADD &c3
OUT(C),A
LD DE,&4000
LD HL,&c000
LD BC,16000
Doit:LDIR
LD BC,&7fc0
OUT(C),C
RET
Recall:LD BC,&7f00
LD A,(IX+0)
ADD &c3
OUT(C),A
JP Doit
```

Here's the same routine in BASIC:
10 FOR f=&a000 TO &a000+49:READ a:POKE f,a:NEXT
20 DATA 1,0,127,221,126,0,198,195,237,12
1,17,0,64,33,0,192,1,128,62,237
30 DATA 176,1,192,127,237,73,201,1,0,127
,221,126,0,198,195,237,121,17,0,192,33,0
,64,1,128,62,195,16,160,0

To store a screen in one of the four banks:
CALL &a000,(1-4)

To recall it:
CALL &a01b,(1-4)
That should do the trick. Richard

Ironically, your illustrious editor, Dave, has let me have two pages this month to talk about all things assembly, and guess what the article's about - yep, compaction! Have you ever been in the situation where you have had tons and tons of lovely graphics, and no memory into which to squeeze them? If you have, you're in luck, because this month we have the routine that you've been waiting for. If you haven't, well just pretend, okay. It'll make me feel

like writing this feature hasn't been a waste of effort.

There are three specific types of crunching programs: ones that compact the contents of a disc, ones that compact text and ones that concentrate purely on graphics, like the one we'll be looking at in this feature.

Although the different sorts might all sound very similar, believe me there is a world of difference. First, text compaction is relatively easy, as there are only 26 letters in the alphabet and about 20 symbols you can use. Disc compaction (archiving) is a lot more tricky, and generally has lots of clever algorithms to squeeze both graphics, code and text into the smallest space possible. It also takes a relatively long while to decompact anything, so it would be pretty useless for use in the middle of a game. Here however we are going to deal with graphics screens only.

Coming to the crunch

The first problem with compacting a screen is that each byte of a screen of graphics could be represented by a whole byte of information, ie, the first byte in the top-left of the screen could be assigned any number between 0 and 255. But as 0-255 bytes each require eight whole bits this is pretty wasteful.

Our routine works by crunching all the similar data together - that is if there is a group of 10 bytes all with the value 0 (ie, all the same colour) then it will crunch this down into just three bytes. This means that large areas of similar solid colour will be crunching into a very small area.

The problem with this routine is that if each alternate pixel is a different colour there will be no compaction at all. In fact, the file length would

COMPACTING - THE ABRIDGED VERSION

Right, if you're new to compacting the theory behind all forms of data compaction goes something like this: A compacting program looks for repeated patterns of bytes or a series of identical bytes in a row. It then assigns that pattern or the first byte in the series a 'code' byte which the compacting program stores instead of all the individual byte information.

So, for example, instead of storing a large area of red on a graphics screen as individual pixels, a compacting program will say, "Right-o, here's a series of 10 red bytes in a row. Let's store that in just three bytes (a, b and c) which tell me a) I've compacted this area, b) this area is red and c) that the compacted area is 10 bytes long. That's a saving of 70 per cent. Not bad."

Similarly, a compacting program may look for repeatedly used patterns (of graphics or commands depending on what type of compaction you're doing); what it can do then it save the complete pattern just once, then assign it a short code which it can subsequently save instead of the pattern each time; the code saying, in effect, "see pattern x".

be increased since we have to use a bit to tell the CPC whether the next byte is to be crunched or not. There is partial solution to this problem however, and that is by defining a byte which will mean the next byte is crunched. The first thing the compacting program has to do, then, is to find a byte which is not used in the screen (see Figure 1 on the listing).

So the first thing the routine does is search through each location on screen; it uses a 256 bytes table, each byte of which is filled with a one if that value is found on screen. When it has finished doing this, it sorts through the 256 byte table to find a number that wasn't used. This number will be placed in location NUM.

Now we have a number stored in location NUM which indicates that some information has been crunched when we come to decompact the screen. Next we have to sort through a screen and find suitable data to crunch. This is done (see Figure 2 on the listing- GET SEQUENCE) by checking each alternate byte. If a single byte is found alone then we just copy it from HL to DE, whereas if a sequence is found then the crunch byte, the number of copies and

the value are all copied to DE. This continues until the end of the screen is reached.

The compaction is achieved from BASIC by:
CALL &a000,(location to put compacted screen)

The length of the newly-compacted screen can be recalled by:

PRINT HEX\$(PEEK(&a078)*256+PEEK(&a077))

Resuming normal service

Now we move on to the decompaction, which is just a reversed version of the compaction process. The first byte we find is the CRUNCH number, which is stored as the first byte of the compacted screen. Now we loop through the screen taking a byte from DE (the compacted screen) and putting it into HL (actual screen). This occurs until the routine meets a crunch byte; the first byte of which tells the routine how many bytes have been compacted, while the second tell it the value of the byte to paste onto the screen. That value is then copied the required number of times onto the screen (see Figure 4 on the listing).

The routine recognises that the end of the compacted screen has reached in the same way

as when it is compacting, in other words, when H becomes filled with the byte &FF

To decompact a stored screen:
CALL &a07c,(address of compacted screen)
To save a compacted screen:
SAVE Filename,b,(Start Address),PEEK(&a078)*256+PEEK(&a077)

With this method you can save massive amounts of memory, generally shrinking a screen from 17k to about 8k. Even on complicated screens you should see a 30-40 per cent improvement, and if you don't I'll want to know why!

NEXT MONTH

Okay so that's that for another month, but what about next time I hear you cry - well how about some true sprites. That is, sprites that really do move around the screen without destroying what they pass over. And I'll also be covering look-up tables as a way of speeding up your programs, so you can ditch those slow old firmware routines. Catch you later, dudes!

Trash compacter

Here we go with that compacter listing in full...

```
ORG &a000
LD HL,&c000
LD DE,&a100
LD BC,16000
```

*** FIGURE 1

```
FIND: LD A,(HL)
INC HL
DEC BC
LD E,A
LD A,1
LD (DE),A
LD A,B
LD A,B
JP NZ,FIND
LD A,C
CP 0
JP NZ,FIND
LD DE,&a100
LD B,0
SELECTCOMPACTBYTE:
```

COM1:

```
LD A,(DE)
INC DE
CP 0
JP NZ,COM1
LD A,B
LD (NUM),A
INC B
LD A,B
CP 0
```

ENDSCREEN:

```
LD A,C
LD (DE),A
INC DE
LD A,B
LD (DE),A
INC DE
LD A,H
CP &FF
JP NZ,BEGINCOMP
JP NZ,BEGINCOMP
LD (NUM2),DE
RET
```

*** FIGURE 2

```
GETSEQUENCE:
LD C,0
LD A,(HL)
LD B,A
INC HL
LOOP1: INC C
```

*** FIGURE 3

```
DECOMPRESS:
LD E,(IX+0)
LD D,(IX+1)
LD HL,&c000
LD A,(DE)
LD (NUM),A
INC DE
LD A,(NUM)
LD C,A
LD A,(DE)
```

MAIN:

```
INC DE
CP C
JP Z,DOLINE
LD (HL),A
INC HL
LD A,H
CP &FF
JP NZ,MAIN
RET
DOLINE: LD A,(DE)
LD (NUM2),A
INC DE
LD A,(DE)
LD (NUM3),A
INC DE
LD A,(NUM3)
LD (HL),A
INC HL
LD A,(NUM2)
DEC A
LD (NUM2),A
CP 0
JP NZ,COPIES
JP END
COPIES: LD A,(NUM3)
LD (HL),A
INC HL
LD A,(NUM2)
DEC A
LD (NUM2),A
CP 0
JP NZ,COPIES
JP END
```


Public Image

Free software? Can't be bad, can it? Well, some of it is, some of it isn't. Which is why we employ Keith Woods to sort out the best public domain software from the worst

Xyphoe's Fantasy Demo

By CJC of CCC

Xyphoe's Fantasy was a large multi-level game which was released in France many moons ago, but was never sold any further afield. However, the PD demo, which comprises the full second level of the game, (which was the best anyway) has made it to these shores and is commonly available.

Xyphoe's comes from the same team that brought us *Atland* (reviewed in AA104) and like *Atland* is a sideways-scrolling shoot-'em-up in which you've got to fight off all manner of weird and wonderful creatures. This time around You're on horseback. Your steed is like a Grand National winner – he's fast, he's brave and he can jump to a quite remarkable height.

However, he's also a bit of a hindrance, because he makes a large target for the various nasties. You'll need to defend him as well as yourself, because without him, you'll never get to wherever it is you're trying to

get to in such a hurry (which is never quite

explained). Thankfully, there are plenty of collectables to be found to help you out.

Just like *Atland*, Xyphoe's Fantasy has absolutely gobsmacking graphics – in fact, no other PD game has ever smacked my gob so hard as Xyphoe's Fantasy with its brilliantly-rendered sprites and

backgrounds, its pixel-perfect scrolling and its breathtakingly-realistic animation. I know I said this about the animation of the



bird in *Atland*, but I'll say it again about this horse's galloping – it really does have to be seen to be believed. If you want to know what sort of animation your CPC is really capable of, this is the game to get.

Of course, like any demo, Xyphoe's Fantasy loses marks for long-term playability. However, what there is of it is damn fine stuff, and it's well worth having just to marvel at that graceful galloping.

82%

Xyphoe's is very reminiscent of the C64 classic *Revenge of the Mutant Camels*.



Cyborgs: Blast Through History

By Elmar Krieger

There are many great difficulties in life – getting up in the morning, trying to follow the plot of David Lynch films, getting AA to you lot on time every month or sitting through a full episode of *Neighbours* without putting a fist through the telly, for instance. But none can compare with the greatest test of all – *Cyborgs*!

Cyborgs is an odd little game, make no mistake. It's like *Builderland* gone crazy, only without the cute guy. There are loads of levels, but only you could see them all.

In the first you pilot a small spacecraft which is forced to travel along a roller-coaster track. Unfortunately your ship is lacking one vital feature – brakes! This causes quite a few problems, as lots of winged serpents fly past that you'll need to blast out of the sky, but since you're moving too you rarely get more than one shot at them. Miss and they'll drop a

bomb in front of you which you'll duly drive into.

The second major problem is that the track isn't complete. There are loads of gaps, which you'll need to fill in unless you want to end up daisy manure. Thankfully you remembered to bring along a stock of spare roller coaster parts for just such an eventuality.

The trick is to put the pieces in the right place at the right time, something which becomes acutely difficult in the second level. Level two, you see, is almost entirely concerned with these roller

Here we have the new ride at Alton Towers.



coaster repairs. You literally have only a split second to get many of those pieces in place, so it's more than a little difficult.

The third level is even more difficult; so difficult, in fact, that even I can't get past it (oh, very humble – Dave). For this level your ship becomes airborne once more, and powers its way at breakneck speed through a level completely devoid of any decent flying space.

There are further levels, but we know no-one besides the coder who can actually reach the darned things. This is a shame really, as this game has an awful lot going for it, like a fully overscan screen, very smooth scrolling and animation and decent graphics. If it weren't

so difficult we'd probably give it something around 90 per cent, but as it's so impossible it's only getting mere...

40%

Does anyone except the programmer know what the other levels look like?

CPC Emulator

By Marco Vieth (Available from Demon and The Vault. See Amscene Directory)

Have you ever had one of those really rotten days at work when nothing goes right and you feel like giving up and unwinding with a game of *Klax*/*Rick Dangerous*/*Elite* (fill in relevant title)? Well, if you work with PCs, thanks to this new PC CPC emulator you won't have to wait until you get home (although you'll have to be careful your boss doesn't see you).

You'll need a reasonably decent PC to be able to do it, though. Realistically you'll need at least a 486 with 50 megahertz for the thing to run at normal speed, though a 386 will do if you don't mind taking things at a somewhat leisurely pace. You'll also need to have extra memory running under EMM to run this utility, as EMM is used to simulate the CPC's memory.

So if you do have this set-up, what can you expect from Marco Vieth's emulator? It'll run just about everything the CPC has to offer. While some demos will always cause problems, the latest versions of this utility can even cope with such things as overscan and rasters. The odd program still causes it problems, though. It doesn't like *Prehistorik 2* much for instance.

The program works by taking a copy of your CPC's ROM and creating 180k 'images' of your CPC discs on your PC hard drive. For all this, you do, of course, have to have the same size high-capacity drive on both your CPC and PC. A program for copying your CPC's ROM is included with the package and any other ROMs that you may have on the back of your CPC can also be copied over. Like the discs, these ROMs become 'images' on your hard drive which can be selected whenever you want them.

All remaining bugs that prevent programs such as *Prehistorik 2* from running should have been eliminated by the time you read this. The latest word is that Marco's got a perfect version up and running on a Power PC.

If the final program is as perfect as he says, it'll be worth another 10 per cent, the heavy set-up requirements being the only other possible criticism of this great package.

83%

Next Month...

"No!" they cried, "No, please, not again – we've only just got over *The Taximan* last issue." But it was too late – they could tell by his crazed expression, they were going to have to suffer another **CONCEPT REVIEW!** With eyes glowing red and foam dripping from his mouth he turned and cried, "Ghost Quadrant will be my victim, hahahaaaaa!"

Only one question remained on their quivering lips. Would *Battlespheres* get the same treatment if it arrived on time for issue 110? And then someone thought the unthinkable – "What if he wants to interview the coder as well?"

Special Report: Demos

Demos – little programs full of flashy effects or, as Adam Shade once suggested, chocolate hobnobs that work for the KGB? (The nice man in the white coat helped Adam write this with his crayon.) There was only one

Loads of demos use black magic imagery.

thing for it: the Public Image team was going to have to start an investigation. What do demos do? Erm, good question. Most of them do little more than play some nice music and send some messages to friends of the coder (which'll bore anybody else to death). The demo usually justifies its existence by also including some smart coding effect, which, strictly speaking, your CPC shouldn't be capable of doing.

What about playability? This is the question that makes most demo-writers cringe.

Basically, there is none. You just watch demos and read the messages. Some demos do have keypresses, but they're usually just to change the speed of something happening on screen. That's all you ever get to do.

Are demos popular? Well, some people obviously like them as PD libraries are full of the things. But PD librarians will stock anything! That may be true, but most insist that the demos do

Persil Ultra will get rid of stains like this.



Did anybody see *Excalibur* on TV a few weeks back? Tripe, wasn't it?

The subtext here is man's inhumanity to prawn curries.

sell. Demos are much more popular across the channel – it sometimes seems they're talking about nothing else in Germany and France.

Who enjoys them? The people that enjoy good demos most are people that can appreciate the hard programming work that goes into the best demos, have an interest in the messages, or enjoy good CPC music or graphics (programmers, then? – Dave). If you don't think you possess most of these attributes, you probably won't like demos.

Who writes them? The best demos are nearly always a team effort. Most coders aren't good musicians or artists, and vice versa. Therefore teams are formed which combine the talents of many different people to produce demos which are good in every respect. The teams, past and present, which have produced the best demos are:

- Beng! – the team that produced many excellent demos, including the *Voyage 1993 Megademo*.
- Moving Pixels – which includes Face Hugger, author of the brilliant

megademo that bears his name. MP are also responsible for the recent *MOPS* megademo.

- Logon System (France) – responsible for the landmark *The Demo*, which was

widely accepted as the best for many years.

- HJT (Germany) – which includes Odiessoft, author of many highly original demos and soon to release a megademo.

So, which are the best? If you haven't seen a demo before and would like to find out if you hate them or not the best ones to check out are:

- *The Voyage 1993 Megademo* – my favourite. A massive demo with great style.
- *Face Hugger's Ultimate Megademo* – brilliant 3D animation and virtually no boring scrolls.
- *The Demo* – the original megademo. No longer the best, but still worth a look.

That's it, all you should ever need to know about demos. As Motty would say, CASE SOLVED!

The Examiner

East of the sun and west of the moon lies a realm known as the AA adventure pages. Lord of this realm is Debbie Howard, for it is she who decrees which adventures make the grade. Take heed, or end up playing a pile of old laundry...

ANGELIQUE – A GRIEF ENCOUNTER FIFTH ADVENTURE IN A SET OF FIVE

REVIEW

PRICE: Tape/disc £2
per adventure or £8
for all five Arnold

adventures on one disc (you
can only buy the set of

adventures on disc).

DISTRIBUTOR: WoW Software, 78 Radipole
Lane, Dorset, DT4 9RS. CHEQUES/POSTAL
ORDERS PAYABLE TO: JG Pancott.

"Of course," Wilhemina continued, "Humpty Dumpty was an expert in the shady arts. He said that words meant precisely what he wanted them to mean, neither more nor less!"

Her dry, cryptic advice meant less than it perhaps should. My thoughts were on a problem of immediate importance, like how do you divide three parachutes equally between four?

Arnold, my darling Arnold, displayed his endearing quality of eccentricity by attempting to move the Egyptian pilot from the controls,

helping me on with the best of the 'chutes, nodding agreement to Wilhemina and chewing a cheroot all at the same time!

In triple-vision I saw the colours of the Black Watch flash by (hang on – have we missed a chapter here or something? What the flaming fajitas is triple vision? – Dave). I caught a

glimpse of a radiant Wilhemina floating upwards (upwards? – Dave), and then I felt an icy shiver as I saw myself descend rapidly into a crater (whoever she is, she's been on the booze – Dave). The crater of a volcano, that is!

Hanging in the straps, with the 'chute caught on the narrow opening, I dwelt for a moment on the chances of ripping it to shreds and making a rope so that I could climb out (not sensible; why not just climb up the parachute? – Dave). But then the straps broke. The 'chute travelled

upwards in a gust of wind. I landed most inelegantly in a pile in a pile of lava dust, unhurt.

I sobbed for him (who? Arnold? The Egyptian pilot? Peter Cushing? – Dave), shed a tear for myself, and then summoning up courage, I hummed to myself, "Lava come back to me."

I recalled the words of Wilhemina, and deliberated on my real belief of the universal mind. And I called inwardly for you (who, me? – Dave). I have this terrible fear of losing Arnold before I can tell him just how much I do care.

And so begins another Arnold Blackwood adventure (and I

thought we'd blundered into the middle of a James Herbert novel – Dave). The start of this adventure is a bit tricky as there are no apparent exits – all you have is all you hold, and you'll be occupied for hours trying to use each and every item to discover which one is the key to your escape so that you can begin your quest to find Arnold. However, a small pointer in the right direction might help you here (upwards, I would have thought – Dave). It's not so much what you

are carrying as what you are wearing that will have you climbing out of trouble in no time. A good mind for puns and a vivid imagination is definitely needed!

Even though you take the role of Angelique, Arnold's star-crossed lover,

you seem to spend most of the adventure trying to look like something you're not. All is made clear eventually but you have to be patient.

Overall, it's a pleasing enough adventure and worth the purchase price. It's good clean fun and written with a wicked sense of humour, as are all the Arnold adventures. It's no adventure for beginners, but if you're looking for a bit of a challenge this one's for you!

79%

ESCAPE FROM THE PRISON PLANET

PRICE: £5

FORMAT: Disc only. 464, 6128 and PCW.

DISTRIBUTOR: WoW Software,
78 Radipole Lane, Dorset.

CHEQUES/POSTAL
ORDERS PAYABLE
TO: JG Pancott.

REVIEW

You have been found guilty
by the Federal Court on Planet

COMING SOON...

Raiders Of The Lost Tomb is the latest adventure to be released from WoW software. It's been written by Peter Clerk, another of whose games is reviewed in this section this month. It was created using PAW, though Lorna Paterson will be converting the adventure over to GAC so that tape users can play the adventure too; by the time you read this both version should be available.

Communications

Dear Examiner,
I am having a lot of trouble in the adventure *Smashed*. Could you please tell me how to operate the chopper? I can get in it all right but I can't seem to start it. Also, when you are left outside the minefield and you are meant to find the missing officer I keep getting lost. And in *Lifetern* I don't know how to even begin the game. On the cover of *4 Most Adventures* it seems to suggest that a space craft is landing. Can you tell me how to get to this point?
David Faulds, Argyll.

The commands that you are looking for in *Smashed* are ENTER CHOPPER, SWITCH ON, and PULL JOYSTICK. To find your way out of the maze go SOUTH, SOUTH WEST, SOUTH, SOUTH, SOUTH WEST, WEST. In *Lifetern* you don't actually say why you can't get on with the game so it's pretty difficult to help you – if you want to get the spacecraft landing part of the game you will just have to be patient and play your way through. However, just to

start you off here are the first few commands; DOWN, SEND SOS, WEST, WEST, EAST, UP, DOWN, UP, LOOK, LOCK PILOT IN STOREROOM, SEND DROID TO SHIP, WEST, WEST, GET ID CARD. Now you are on your own, good luck! Debbie

Dear Examiner,
When the *Graphics Adventure Creator* (GAC for short) was on the AA covertape there were adverts in AA for a booklet that went with it. Can you please tell me where I can get hold of one of these booklets?
Sarah Chacey, Kent.

I've had a few enquiries about the GAC booklet. Unfortunately, you should have obtained it when you could, because it is no longer available (there must be a moral in there somewhere). Perhaps someone somewhere has a copy that they no longer want in which case you should advertise in *Adventure Probe* or other adventure fanzines for a copy, and I'm afraid it's just a case of wait and see. Debbie

Where to go

If you're looking for new and re-released adventures, then drop these people a line (enclosing an SAE, of course) for their latest stock lists.

- WoW Software, 78 Radipole Lane, Weymouth, Dorset. DT4 9RS.
- Adventure Workshop, 36 Grasemere Road, Royton, Oldham, Lancashire, OL2 6SR.
- Amstrad Adventure Solution Service, 10 Overton Road, Abbey Wood, London, SE2 9SD. (This service is what it says and does not sell adventures).

exactly advanced adventuring at it's most challenging.

But then things take a decidedly more complex turn. As the adventure progressed the puzzles became more difficult and far more interesting. What particularly endeared me to this adventure was that the location descriptions are so detailed and well written. They not only add to the atmosphere, but they often give you subtle but vital clues about what you need to do next. This is a clear case of READ ALL, EXAMINE ALL.

As it is a two-part adventure, you are required to save part one in order to continue on into part two and finish the adventure. The commands LOOK IN/UNDER/BEHIND are well used, and I could find no difficult verbs or nouns needed to solve the puzzles (so you can throw away your Thesaurus). But that doesn't mean the adventure is a pushover, so don't be fooled! In some places you are required to enter more than a verb/noun input; for example, at one point you need to type IN INSERT TOKEN INTO SLOT. But you are prompted for a more descriptive input at the correct time, which is very handy.

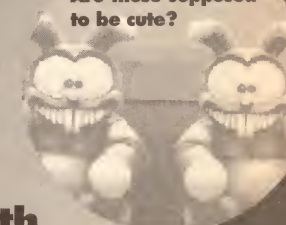
This has got to be one the finest adventures that I have played in a very long time. If I had to find a fault it would be that it is for disc users only at the moment, but hopefully this glowing review might encourage WoW Software to release it on tape. Tape users deserve it.

92%

CLUEPOT

A big thank you goes to S Kempin from Leicester, Ross Younger from Edinburgh, Peter Clark from Ipswich and Phill Ramsay from Manchester for this month's hints and tips. Strangely enough, they are all men. So girls don't let the side down – send in your hints and tips to Cluepot, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon, BA1 2BW.

Are these supposed to be cute?



Dances With Bunny Rabbits

ITEM	LOCATION	USE
Clothes	Timmy's Wardrobe	Wear them
Cookie Jar	Kitchen	Fill with water at lake
Cookies	In Jar	Eat (Find Key)
Carrot	Kitchen	Help sight in cave
Short Stick	Outside House	Throw to dog and use at snake
Mum's Dress	Parents' bedroom	Wear in lake for help
Horse	West end of town	Ride from town
Rifle	Push sniper off roof	Give to Indian
Magazine	Inside safe (Office)	Show To Lulu
Bottle	Bar in saloon	Hit Man In Saloon
Saddle	Man in saloon	Ride Horse
Gun	Under Timmy's bed	Shoot Arab
Key	In cookie jar	Open cabinet
Ring	In cabinet	Cut mirror
Hankie	In cabinet	Drop for help with booties
Mirror	In hotel	Give second Indian
Match	Indian	Melt wax in pot (mine)
Dagger	In pot (mine)	Wave at man (in ante-chamber)
Genie	Rub lamp	Inside mine tunnel

Darkest Road

- Examine everything thoroughly (more than once if necessary).
- Wear the shoes when you enter the forest.

First Past The Post

- Push the gnome's nose.
- Search the bench to find the oil can.

Five On A Treasure Island

Just for laughs – as Dick, go through the grill in the underground cavern but make sure there isn't a rope at the bottom of the well. Then find Julian and see what happens.

Hades

Follow Hercules' example to get past Cerberus.

Heroes Of Karn

- Beren will kill the serpent with the falcon.
- Use the spear on the Hyra.
- Put the bear to sleep with the honey.
- Play the flute to the Balrog.
- Get Istar to read the scroll.

Cheat mode

They never knew what hit them. In fact, they didn't even realise anything had hit them. Because they were invincible. They were indestructible. They were eternal. They were, in fact, games characters being controlled by someone smart enough to take heed of Lee Rouane's advice. Not a bad way to earn a crust.

RENEGADE

Kicking off this month in great style (it's the way he tells 'em - Dave) is Christopher Paul Griffiths of Bedminster with a whole wad of tips for one of the best beat-'em-ups ever, *Renegade*. Take it away Chris me old mucker.

Level 1: The Subway

When dealing with the black muggers, back-kick them and then fly-kick them from behind, they die instantly. Try this on the white men and they will still need to be KO'ed one more time.

● **How to handle the boss:** back-kick or fly-kick him from close range. If you try to punch him, he'll smash you to pieces. Not a nice man.

Level 2: The Pier

To deal with the bikers, just fly-kick them. When the HA's come, they act the same as the white



muggers from level one, so dispatch them in the same way. ● **How to handle the boss:** it's safe to punch him but it takes around seven or eight hits to kill him

outright. Be careful, though - if you fluff up a back-kick, he'll floor you without hesitation.

Level 3: The Street

Remember the tips from level one, but with the ladies it's vice-versa (use the black mugger technique on these devil women).

● **How to handle the boss:** Bertha is a very tricky customer. At long range, she will try to ram you. To deal with this, fly-kick her before she reaches you. Only back-kick her from a very close range. Do not punch her as she is faster than you.

Level 4: End Street/Interior

When dealing with the knifemen, use any tactic, no matter how underhand. Be just as underhand this when you get in the flat.

● **How to handle the boss:** if he is at long range, he will

shoot you, but from close range he will only kick you. It is safe to punch him and he takes around seven to eight hits.

● If you kill the last boss you get 10,000 points and an extra life. Which is handy because then you have to start again, but this time around the going gets much tougher.

DRILLER

Michael Goudman from Penkridge has written pleading, nay, begging for us to reprint the *Driller* pokes featured aeons ago. Well, here are two brilliant POKEs for your inspection - because you didn't specify whether you wanted a disc or tape version. This two-for-the-price-of-one stuff is a rare occurrence because Cheat Mode space is valuable. Please, when you write in, tell us whether the game you want a cheat for is on tape or disc.

FANL 100.'Driller'--tape
FAPJ 110.'By Tony Hoyle
AAKN 120.'
DAAJ 130.MEMORY.&IFF
FAFJ 140.DATA.DD,7E,00,32,E5,BE
FADJ 150.DATA.2A,3B,BD,22,E3,BE
FAKJ 160.DATA.21,FF,3F,22,38,BD
FAMF 170.DATA.21,9B,BE,22,01,40
FAFH 180.DATA.C3,05,40,AF,32,E6
FANJ 190.DATA.AC,21,AD,BE,22,4B
FADL 200.DATA.AC,2A,E3,BE,7C,E6
FABJ 210.DATA.3F,67,E9,21,E5,BE
FADI 220.DATA.CB,46,28,0D,AF,32
FAME 230.DATA.B0,68,32,55,67,32
FABJ 240.DATA.F4,6B,32,87,6D,CB
FAAC 250.DATA.4E,28,19,3E,18,32
FAAI 260.DATA.B8,6B,32,54,6D,3E
FAHF 270.DATA.01,32,B9,6B,32,55
FAGJ 280.DATA.6D,CB,56,C8,3E,18
FANG 290.DATA.32,FE,53,3E,01,32
FADL 300.DATA.FF,53,C9,D4,CD,C8
DAEI 310.DATA.82,71,66
FADI 320.FOR.n=&BE80.T0.&BEE2
CAHH 330.READ.a\$
EA00 340.POKE.n,VAL("&"a\$)
BAHP 350.NEXT
BA0J 360.x=0
MABB 370.s\$="Infinite shields and energy"
CAHP 380.GOSUB.480
FAKH 390.IF.a.THEN.x=x.0R.1
KA00 400.s\$="Place drills while in jet"
CAEP 410.GOSUB.480
FAFH 420.IF.a.THEN.x=x.0R.2
JAGJ 430.s\$="Start game inside jet"
CAEP 440.GOSUB.480
FAKH 450.IF.a.THEN.x=x.0R.4
BAMP 460.LOAD
DAAL 470.CALL.&BE80,x
BA0J 480.CLS
DABA 490.PRINT.s\$
FAJB 500.a\$=LOWER\$(INKEY\$)
HAMD 510.IF.a\$="y".THEN.a=1:RETURN
HABD 520.IF.a\$="n".THEN.a=0:RETURN
CAGX 530.GOTO.500
BAAJ 540.END

FAOL 100.'Driller'--disk
FAPH 110.'By Tony Hoyle
AAKN 120.'
FACJ 130.DATA.DD,7E,00,32,D4,BE
FAKC 140.DATA.11,00,00,0E,41,21
FAKH 150.DATA.00,01,DF,D5,BE,21
FAEI 160.DATA.9A,BE,22,3D,02,C3
FANH 170.DATA.00,01,3A,D4,BE,5F

L

CONFUSED BY LISTINGS?

Don't panic if you've never typed in a listing before and you can't seem to get them to work. Some AA type-ins are a bit special, you see. There's a full explanation of how to type in the darned things and what the four-letter codes at the beginning of each line mean on page 20 this month.

FAFI 180.DATA.CB,43,28,0D,AF,32
FABF 190.DATA.B0,68,32,55,67,32
FANI 200.DATA.F4,6B,32,87,6D,CB
FAAF 210.DATA.4B,28,10,3E,18,32
FAMH 220.DATA.B8,6B,32,54,6D,3E
FADF 230.DATA.01,32,B9,6B,32,55
FAGI 240.DATA.6D,CB,53,28,0A,3E
FANG 250.DATA.18,32,FE,53,3E,01
FAII 260.DATA.32,FF,53,C3,9F,48
FABF 270.DATA.00,3C,C0,07,82,71
CAAG 280.DATA.66
FANI 290.FOR.n=&BE80.T0.&BED7
CAEH 300.READ.a\$
EALO 310.POKE.n,VAL("&"a\$)
BAEP 320.NEXT
BALJ 330.x=0
MAOA 340.s\$="Infinite shields and energy"
CACP 350.GOSUB.460
FAHH 360.IF.a.THEN.x=x.0R.1
KAEP 370.s\$="Place drills while in jet"
CAFP 380.GOSUB.460
FALH 390.IF.a.THEN.x=x.0R.2
JADJ 400.s\$="Start game inside jet"
CAPO 410.GOSUB.460
FAHH 420.IF.a.THEN.x=x.0R.4
PACI 430.PRINT"Insert Driller disk and press space"
GAAG 440.WHILE.INKEY(47)=-1:WEND
DAOK 450.CALL.&BE80,x
BAMJ 460.CLS
CAPP 470.PRINT.s\$
FAAC 480.a\$=LOWER\$(INKEY\$)
HADE 490.IF.a\$="y".THEN.a=1:RETURN
HAPC 500.IF.a\$="n".THEN.a=0:RETURN
CALK 510.GOTO.480
BAOI 520.END

Don't you hate people who hog the middle lane?

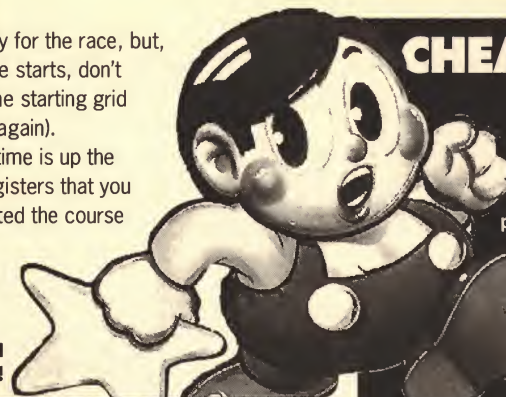


BURNIN' RUBBER

Getting into top gear next is Chris Roushias with this excellent tip for *Burnin' Rubber*, a game which probably more CPC owners have got than any other (but then, Plus owners didn't really have much of a choice in the matter).

CHEATS APPLY WITHIN

Nobody likes a cheat. Except us here at AA. We love 'em. We make stars out 'em. We put 'em on pedestals so high they need oxygen and then we prod 'em with long sticks. So if you're a cheat, shunned by the rest of society, send us a sample of your wares and you never know - you could be on your way to the very top of the showbusiness butter mountain. Write to: Cheat Mode, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW. You know it makes sense.



RAINBOW ISLANDS

A second contribution now from Christopher Paul Griffin, this time for one of AA's all-time favourite games (if you haven't got it, why not? - Dave) *Rainbow Islands*.

He suggests that when you reach the top of a stage you should build rainbows and then jump off them into the top of the screen. When you build the last rainbow at the top, hold on to the jump control and watch the points mount up.

GAUNTLET

Tony Parker and Donna Packer, our beloved covertape hackers from Lowedges have written with a request this time, not with a POKE. They write asking for a *Gauntlet* disk poke. Well, you're in luck folks as here's one just waiting to be typed in:

Filename:GACHT
FAHM 100.'Gauntlet.Disk
HAON 110.'By Richard Monteiro
AAKN 120.'
IAKM 130.MODE.2:INK.0,0:BORDER.0:GOSUB.410
LAKJ 140.PRINT"G:A-U-N-T-L-E-T-P-O-K-E-S":PR
INT:PRINT
CBCH 150.PRINT"Prevent Generators creating th
e enemy? (Y/N)";
MANE 160.a\$=UPPER\$(INKEY\$):IF.a\$<>"Y".AND.a\$<
>"N".THEN.160
EABL 170.PRINT.a\$:PRINT
FBIA 180.PRINT"Stop yourself dying when healt
h reaches zero? (Y/N)";
MAGF 190.b\$=UPPER\$(INKEY\$):IF.b\$<>"Y".AND.b\$<
>"N".THEN.190
EAMK 200.PRINT.b\$:PRINT
JBGO 210.PRINT"Turn enemy invisible--only Ph
antoms will now cause damage (Y/N).?";
MANE 220.c\$=UPPER\$(INKEY\$):IF.c\$<>"Y".AND.c\$<
>"N".THEN.220
EAAL 230.PRINT.c\$:PRINT
LBDD 240.PRINT"Turn yourself invisible--the
enemy is still attracted by you (Y/N).?";
MAGH 250.d\$=UPPER\$(INKEY\$):IF.d\$<>"Y".AND.d\$<
>"N".THEN.250
EAEL 260.PRINT.d\$:PRINT
ABFK 270.PRINT"Is this to your satisfac
tion (Y/N).?";
MAPF 280.e\$=UPPER\$(INKEY\$):IF.e\$<>"Y".AND.e\$<
>"N".THEN.280
FAGC 290.IF.e\$="N".THEN.RUN
GBMH 300.PRINT"INSERT THE GAUNTLET DISK
.INTO DRIVE A WITH THE WRITE PROTECTION
OFF"
PANF 310.PRINT"Press a key when ready..
":CALL.&BB18

SIM CITY

The following few tips (up to *Wizard Warz* on the next page) all come from an irate Aussie called Steven Grandile from Perth. Judging by his letter, these are the only games available in Australia! Brownouts in *Sim City* happen when your power station can no longer power all of your

The manic multipoke mania zone

A nice breath of fresh air this month as J (Jacob?, Jehovah? Judgement?) Hoggan from Pentrechwyth, Swansea has brought quite a few new pokes to light and for this we thank him. Enough of the praise now, how about sending us some more J? (Juniper? Jellybean? Jagged?). You know the address - Cheat Mode, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

Game Name	Format	Poke, Addr	Effect
IK+ (Champs edition)	Tape	27C0,00	Infinite fighting time
		2BA4,00	One level game
		4431,00	Everybody is invincible
		5456,00	Long arms on bonus level
		2DE3,C9	Continue from where you last died
		2DBB,x	x = level increment number
		4707,C9	No scores
		46AF,C9	No points
		46C6,x	x= points for a win (01 to 07)
		2DCE,00	No bonus round
		2DCE,x	x = levels between bonus rounds

city. To combat this, build more power stations or reduce the size of your city.

NEMESIS

Start a two-player game and if you pass a stage while playing as player two you will start from that level in the next game.

SAVAGE

Level codes are : SABATTA for level two and FERGUS for level three.

WIZARD WARZ

First make a map of level one. Make sure that you get the yellow magic barrier as this makes you invincible to any opponent. Remember to stay out of the water. On level two fight the bathing with the ring through its nose first as he gives you a spell to steal other characters' spells.



TAG TEAM WRESTLING

Completing his hat-trick of tips this month is Christopher Paul Griffin with a grappler of a tip for Tag Team Wrestling.

He informs us that to be the best you should choose Groucho and Juagen Meatball because Groucho has the hardest kick of the lot. If you use Groucho and his kick correctly you can win the match in record time.



ARE YOU IN NEED OF HELP?

Frustrated? Tense? Irritable? Pressure getting too much? Watching Punt and Dennis and finding something to laugh at? You need help. And if the root of your psychological trauma is a game, then Lee Rouane's the man to turn to (well, that's after you turned to Punt and Dennis, pulled a gun and put everyone out of their misery).

Send Lee a letter with details of the game you're stuck on, what's causing the problems and what flavour of cheat you'd prefer. The address, by the way, is HELP!, Amstrad Action, Future Publishing, 30 Monmouth Street, Bath, Avon BA1 2BW.

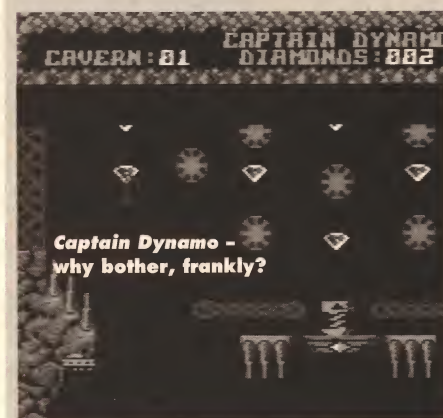
HELP!



Dear Cheat Mode,
Please can you help me with the following games (no multiface pokes please)? Captain Dynamo and Nebulus.
Meiron Boudier, Penarth, South Glam'.

The best tip I can give for Captain Dynamo is don't play it. But facetiousness aside, here's the listing you ordered, sir.

GAAO 100.'Captain Dynamo.....
FAEH 110.'By Lee Rouane
GADL 120.'Infinite lives..
GAPC 130.'Pause and quit
HABG 140.'To increase level
AANN 150.'
DANN 160.DAT:21,09,bf
DAJN 170.DAT:22,0b,a0
DANN 180.DAT:c3,20,a0



CAMI 190.DAT:a7
DAJK 200.DAT:32,1d,47
DAIH 210.DAT:21,12,49
DADO 220.DAT:22,fd,69
DAHK 230.DAT:c3,00,46
DAGK 240.MEMORY:&A000
FAIH 250.FOR:x=&BF00.T0:&BF15
FAPJ 260.READ:a\$:=VAL("&"+"a\$")
EAGI 270.PKOE:x,a:NEXT
EAFJ 280.LOAD"loader"
DAFA 290.CALL:&BF00

As for Nebulus, press these combinations of keys during play to increase the level.

RET and CLR and then:
E and D - Slippery Slide
R and F - Swimmers' Delight
U and J - Edge Of Doom
And it's as simple as that. Lee



Dear Cheat Mode,
I wonder if you can help me. I am stuck on Turbo the Tortoise and I don't know what to do. I can get as far as the punky looking boss and then he just wipes me out. What can I do?
Jamie Leslie, Wales, Sheffield.

It sounds like you are in a right mess, Jamie. Follow this guide to bring about your hated guardian's downfall. Dodge his first lunge and then jump on to the left-hand platform. Then when he approaches jump off and land on his head. Bounce off and run to the right-hand side platform and do the same again. Repeat this procedure to finish the level. Lee



Dear Cheat Mode,
I have recently become interested in an old game called Armageddon Man by Martech but I can't work out any of the frequencies that are needed to intercept scrambled messages. It's driving me mad!
David Chaffer, Beeston, Notts.

Unfortunately David I know not of these frequencies of which you speak. But fret not, because I have found a man who does. Take it away Richard Ormson:

Argentina	0,1,2,3,4,5,6,7
Australia	0,2,4
Black Africa	4,5,6,7
Canada	2,3,4,7
Central America	1,3,5,7
China	0,4,7
Eastern Block	2,4,6
Euro Unite	4,5,6,7
India	4,5,6,7
Israel	1,3,5
Japan	2,3,5,6
Islamic Alliance	1,3,5,7
Libya	1,2,3,4,5,6
Pakistan	1,2,3,4
South Africa	2,3,7
USA	0,2,4,6

And that wraps it up for this month. Lee

Dear Cheat Mode,
Any help on Rainbow Islands would be absolutely brilliant. Go on, I reckon you owe it to me after all those tips I've given you.
Christopher Paul Griffiths, Bedminster, Bristol.

Actually this question can (conveniently) be answered by Meiron Boudier who writes in saying that to get into the secret rooms you need to collect all the crystals in order to be allowed entry. This should also answer a question in HELP! a couple of months back. Next! Lee

Black Jack & Cribbage

Ever since he saw Maverick Dave's considered himself a bit of a card-playing genius. But has he met his match in these games?

when your computer keeps asking if you want to score, "One for his nob."

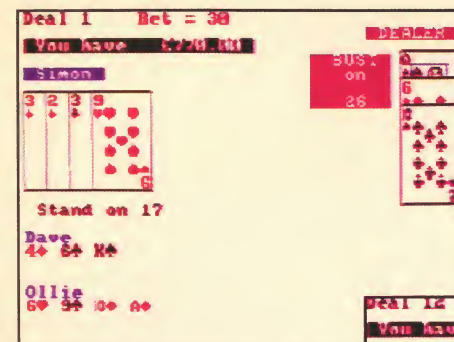
Let's face

it Cribbage is a darned odd game, period with all that knocking (oo-er - oops, sorry, forget I said that), and shouting out things like, "Fifteen six and six for three sevens makes twelve." Black Jack is much more sensible, the only problem being that whenever you play it with someone new you always find that they play using slightly different rules - "Splitting? What do you mean, splitting."

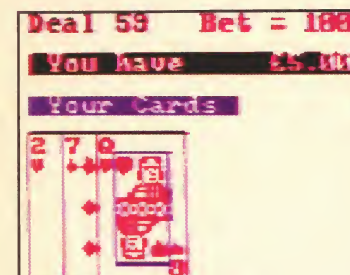
But just in case you're worried that either of these games don't conform to the rules that you play by, don't panic. Both games can be customised to include just about every variation of the rules imaginable. Cribbage offers everything from five-card to eight-card games and the choice of letting your opponent swipe half your score if you bodge up your sums at the end of a hand.

Black Jack can be played with up to four people, with the computer as the dealer (and you can't help feeling it cheats, but then you always feel that about the dealer). You can even play with the computer controlling one of your opponents as well as the dealer (sounds dodgy). You decide on how much dosh you want to start with, and how much you want to bet each time, and the game carries on until you either run out of money or get bored.

At the end of a sesh' you can check out statistics showing you how well (or badly)

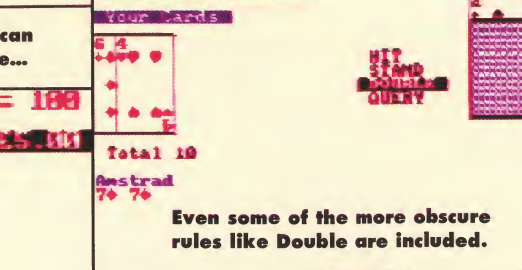


If Simon's got £770 he can buy a round for a change...



Stand on 19

I'm sure we used to call it "stick" when I were a lad.

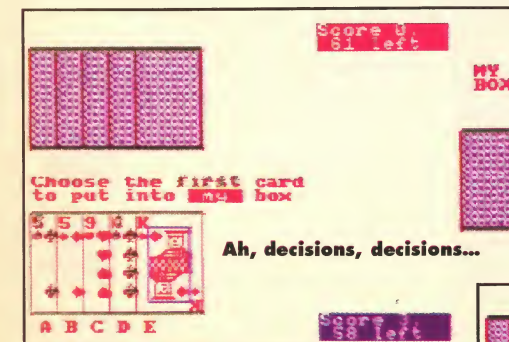


Even some of the more obscure rules like Double are included.

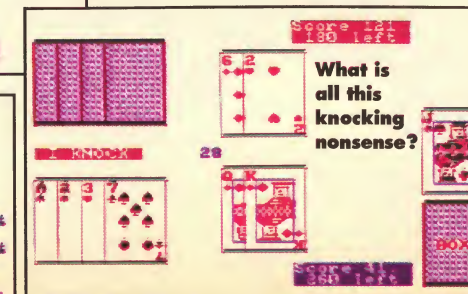
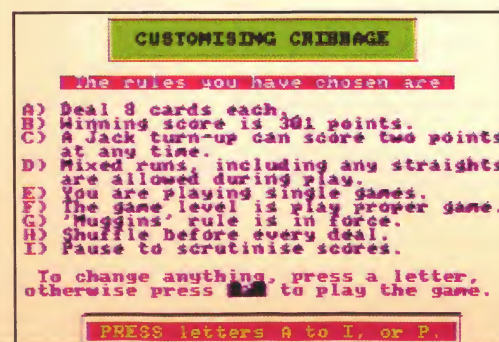
You've played 64 deals in which you lost 350 pounds in total.
You bet a total of £210 pounds, so lost at a rate of 15.74%
You played for thirty four minutes so the loss rate is 637 pounds and 6 pence per hour.
You made no insurance bets.

These Black Jack stats are handy, but they'd be better presented in the form of charts, we reckon.

Press Space-bar to continue



Ah, decisions, decisions...



Rules are made to be broken, apparently - but try telling that to your CPC.

VERDICT

FORMATS: 464/6128/Plus

PRICE: £14.99

DISTRIBUTOR: Sentinel Software, 41 Enmore Gardens, East Sheen, London SW14 8RF.

GRAPHICS

Just because they're card games they don't have to look this dull

35%

SONICS

Irritating little pings that the game would be better off without.

25%

GRAB FACTOR

They're easy to get into, friendly and immediately playable.

65%

STAYING POWER

If you like the original games, this should keep you amused for a while.

75%

RATING

Good enough games, but the price is way too high.

64%

